



**INFORMATION NEEDS OF UNIVERSITY OF SOUTH AFRICA
STUDENTS USING THE ADULT REFERENCE DEPARTMENT AT
MSUNDUZI MUNICIPAL LIBRARY, PIETERMARITZBURG.**

by

Penelope Gugulethu Vidima
B.Bibl. (Hons.)

Submitted in partial fulfilment of the requirements for the Degree of Master of
Information Studies (Coursework 50%) in the Information Studies Programme, School
of Social Sciences, College of Humanities, University of KwaZulu-Natal,
Pietermaritzburg, South Africa.

2018

DECLARATION OF ORIGINALITY

I, **Penelope Gugulethu Vidima**, declare that:

1. The research reported in this thesis, except where otherwise indicated, is my original research.
2. This thesis has not been submitted for any degree or examination at any other university.
3. This thesis does not contain other person's data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
4. This thesis does not contain other person's writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - Their words have been re-written, but the general information attributed to them has been referenced.
 - Where their exact words have been used, then their writing has been placed inside quotation marks.
5. This thesis does not contain text, graphics or tables copied and pasted from the internet, unless specifically acknowledged, and the source being detailed in the thesis and in the list of works cited.

Penelope Gugulethu Vidima
(Name of student)

.....

Dr. Z. Nsibirwa
(Name of supervisor)

.....

Date:

Date:

DEDICATION

This thesis is dedicated to God Almighty for His love and grace.

“Commit thy works unto the Lord, and thy thoughts shall be established”.

Proverbs 16: 3 KJV.

ABSTRACT

Library services are one of the critical services that are needed by scholars, students and researchers to fulfill their information needs so as to operate effectively in today's academic world. This study sought to determine what the University of South Africa (UNISA) students using the Adult Reference Department (ARD) at Msunduzi Municipal Library (MML) need to satisfy their information needs, whether they were getting what they required from the services offered by the library, and whether any existing services needed to be amended or any new services needed to be introduced.

The theoretical framework used as the background to guide this research was Wilson's 1996 model of information behaviour. It was used in conjunction with the extension of Wilson's model for the information behaviour of distance learners as it was found to be more relevant to distance learners. The research approach used by the researcher was a quantitative one and the collection of data was conducted using self-administered questionnaires. Multiple copies of the instrument were made and distributed. A sample of 130 students was surveyed, of which 116 completed and returned the questionnaires giving a response rate of 89%. The validity and reliability of the data collection tool were established by pre-testing the questionnaire on 10 colleagues who were studying part-time. The quantitative data was analysed using the Statistical Package for the Social Sciences (SPSS) and findings were presented in the form of tables, bar graphs and pie charts.

The findings of the study revealed that although respondents used textbooks regularly, there was a lack of relevant and up-to-date textbooks. It was also established that not all the respondents used the Internet, mainly due to lack of access, low bandwidth and lack of requisite search skills. It also emerged that, students need library training in order to use and explore all library services available and fulfil their information needs.

Recommendations included that the library must look into extending library opening hours, the provision of a discussion area, overnight loans for reference items, the provision of both print and electronic format of scholarly articles and international journals and, in terms of the Internet, the provision of faster broadband Internet access.

ACKNOWLEDGEMENTS

I would like to pass my thankfulness and appreciation to the Almighty God for giving me the strength, courage and will power to finish this thesis.

I am grateful to the University of KwaZulu-Natal (UKZN) for the opportunity it afforded me to fulfil my dreams and goals. I wish to thank Dr. Zawedde Nsibirwa for her critical yet encouraging supervision and her overall support. She stuck with me through many months of uncertainty, and showed me incredible patience.

This research could not have been completed without the support of my superiors Mandla Ntombela, Pranisha Parag, and Shanitha Bhim. Thank you for giving me the opportunity to attend lectures and to meet with my supervisor from time to time. I'm so grateful to Kammy Naidoo for her love, assistance, support and kindness – in her I gained a sister and I will forever be thankful. To my colleagues and fellow students Namhla Marwexu and Masontaha Mahlatsi – you have been a pillar of my strength from the beginning until the end and I appreciate your presence in this journey. I wish to thank the ARD staff for tolerating me for the last few years while I was focusing on my thesis. Many thanks to the population of the study for their participation – this study would not have been possible without their willingness to participate.

The greatest gratitude goes to my husband, S'busiso Vidima for years of love, support, cooking, cleaning and taking care of our daughters without complaint. I would also like to thank my two beautiful daughters Luyanda and Alwande Vidima for their thoughtfulness and understanding throughout the journey. A big thanks to my mother for being there for me and helping out in any way she could and for always being my pillar of strength.

To the other people who contributed immensely to the completion of this thesis and that I cannot mention by name, thank you so much for your involvement and you are much appreciated.

TABLE OF CONTENTS

DECLARATION OF ORIGINALITY	i
DEDICATION.....	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS.....	iv
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ACRONYMS AND ABBREVIATIONS.....	xi
CHAPTER 1 – INTRODUCTION.....	1
1.1 Introduction.....	1
1.2 Background of the study	3
1.3 Statement of the research problem.....	6
1.4 Research purpose and questions	8
1.5 Significance of the study	8
1.6 Scope of the study.....	9
1.7 Definition of terms and concepts.....	9
1.8 Theoretical framework	10
1.9 Research methodology and methods	11
1.10 Structure of the study.....	12
1.11 Summary	13
CHAPTER 2 – THEORETICAL FRAMEWORK AND LITERATURE REVIEW	14
2.1 Introduction.....	14
2.2 Theoretical framework	14
2.3 Information seeking behaviour models	15
2.3.1 Wilson’s model of information seeking behaviour	16
2.3.2 Wilson’s 1981 model	16
2.4 Theoretical framework underpinning the study – Wilson’s 1996 model	18
2.5 Literature Review.....	23
2.5.1 Distance education.....	24
2.5.2 Library services to distance learners	26
2.5.3 Distance learners and nearby public libraries	27
2.6 Studies on information needs of distance learners.....	29
2.6.1 United Kingdom (UK)	30

2.6.2 United States of America (USA)	31
2.6.3 Asia	33
2.6.4 Africa	34
2.6.5 South Africa	37
2.7 Summary	39
CHAPTER 3 – RESEARCH METHODOLOGY AND METHODS.....	40
3.1 Introduction.....	40
3.2 Research paradigm	40
3.3 Research approach	42
3.4 Research design.....	42
3.5 Study population.....	44
3.6 Sampling	44
3.7 Data collection	45
3.7.1 The questionnaire	46
3.7.2 Pre-testing of questionnaire	47
3.7.3 Changes made to the questionnaire.....	48
3.8 Data analysis	48
3.9 Validity and reliability	49
3.10 Ethical issues.....	50
3.11 Summary	51
CHAPTER 4 – RESEARCH RESULTS	52
4.1 Introduction.....	52
4.2 Presenting data	53
4.3 Response rate	53
4.4. Section 1: Demographic information	53
4.4.1 Age and gender	54
4.4.2 Level of education	54
4.4.3 Registration status	55
4.4.4 Field of study.....	56
4.4.5 Home language.....	58
4.5 Section 2: Purpose for use	58
4.5.1 Seeking help	59
4.6 Section 3: Information needs	60

4.6.1 Visiting MML	60
4.6.2 Necessary information.....	60
4.6.3 Degree of satisfaction	61
4.6.4 Personal characteristics	62
4.7 Section 4: Information sources	63
4.7.1 Use of ARD	63
4.7.2 Prescribed or recommended material.....	64
4.7.3 Information sources consulted.....	65
4.7.4 Level of satisfaction using Internet café.....	66
4.7.5 Contributing factors to finding information	67
4.8 Section 5: Library services.....	68
4.8.1 Services offered by the library.....	69
4.8.2 Other services	69
4.8.3 Satisfaction with ARD resources and services	70
4.9 Section 6: Challenges or barriers experienced when using ARD	71
CHAPTER 5 – INTERPRETATION AND DISCUSSION OF THE RESULTS.....	74
5.1 Introduction.....	74
5.2 Demographic profile of the respondents	75
5.2.1 Age and gender of respondents	75
5.2.2 Level of education	76
5.2.3 Field of study.....	77
5.2.4 Registration status	77
5.2.5 Home language.....	78
5.3 Purpose for using ARD	78
5.3.1 Seeking help	80
5.4 Information needs of UNISA students using ARD	80
5.5 Information source preferences	82
5.5.1 Reasons for choice of information resources.....	84
5.6 Library services	84
5.7 Challenges/barriers experienced by patrons.....	85
5.8 Summary	87
CHAPTER 6 – CONCLUSIONS AND RECOMMENDATIONS	88
6.1 Introduction.....	88

6.2 Overview of the study	89
6.3 Conclusions.....	90
6.3.1 Purposes of UNISA students in using ARD	90
6.3.2 Participants' patterns of use of the ARD	91
6.3.3 Information needs of the participants.....	91
6.3.4 Information sources preferred by participants.....	91
6.3.5 The knowledge of library services offered by MML and ARD	92
6.3.6 Participants' satisfaction with services available.....	92
6.3.7 Challenges and barriers experienced by participants	93
6.4 Recommendations.....	93
6.5 Suggestions for further research.....	96
6.6 Summary	96
LIST OF WORKS CITED	97
APPENDICES.....	106
Appendix 1: Permission to conduct research in Msunduzi Municipal Library	106
Appendix 2: Participants covering letter and informed consent	107
Appendix 3: Data collection instrument: self-administered questionnaire.	108

LIST OF TABLES

Table 1: Respondents' age and gender.....	54
Table 2: Level of education.....	55
Table 3: Field of study.....	57
Table 4: Home language.....	58
Table 5: Purpose for use.....	59
Table 6: Seeking help.....	59
Table 7: Available necessary information.....	61
Table 8: Degree of satisfaction.....	62
Table 9: Personal characteristics.....	63
Tale 10: The use of ARD library resources and services.....	64
Table 11: Information sources consulted	66
Table 12: Finding information at the Internet café.....	67
Table 13: Contributing factors to resources used.....	68
Table 14: Services offered by ARD.....	69
Table 15: Other services.....	70
Table 16: Satisfaction ratings.....	71
Table 17: Challenges and barriers experienced	72

LIST OF FIGURES

Figure 1: Wilson's model (1996) of information behaviour	20
Figure 2: Extension of Wilson's model (2005) for the information behaviour of distance learners	22
Figure 3: Students' registration status.....	56
Figure 4: Visiting MML.....	60
Figure 5: Prescribed and recommended material.....	65

LIST OF ACRONYMS AND ABBREVIATIONS

ANC	African National Congress
ARD	Adult Reference Department
DHE	Department of Higher Education
DLSS	Distance Learning Support Services
DUT	Durban University of Technology
ICT	Information and Communications Technologies
ID	Identity Document
ILL	Inter-Library Loans
INISS	Information Needs in Social Services
LIS	Library and Information Studies
MOU	Memorandum of Understanding
MML	Msunduzi Municipal Library
NDP	National Development Plan
NSFAS	National Student Financial Aid Scheme
ODL	Open Distance Learning
OU	Open University
OUT	Open University of Tanzania
SA	South Africa
SPSS	Statistical Package for the Social Sciences
UK	United Kingdom

UKZN	University of KwaZulu-Natal
UNISA	University of South Africa
USA	United States of America
VIP	Visually Impaired Persons

CHAPTER 1 – INTRODUCTION

1.1 Introduction

In their everyday lives and activities, human beings are continuously interacting with information in one way or another. Lester and Wallace (2007: 2) believe that from the moment we wake up until we go back to sleep, information activities are taking place non-stop. Even during sleep, daily information activities comprising the transformation from one format to the other, are occurring. Information is a powerful and universal force in the operation and purpose of society. Lester and Wallace (2007: 7-8) acknowledge that having information at one's disposal assists individuals to make choices that may be important or mundane and helps eliminate doubt or hesitation in decision making.

Libraries and information agencies offer vital services to various public and private institutions including municipalities, corporations, universities and schools. According to Kaniki (2001: 190) "the ultimate aim and function of the library or any other information service is to meet the needs of the community." Grover, Greer and Agada (2010: 1) are in agreement with Kaniki's statement when they reiterated that the common objective of library and information services and systems is to provide access to sources, information and ideas. Information professionals of all types cannot continue to provide the services that have been satisfactory in the past, especially providing access to print and digitised information collections, without helping clientele to do so efficiently and effectively. Providing collections is only the starting point. To provide vital services, library and information professionals must be in constant touch with the changing needs of patrons and the social forces and technologies that influence them.

Library services are one of the critical support services needed by scholars, students and researchers to satisfy their information needs so as to operate effectively in the academic context and, arguably, in other contexts as well. A library plays an essential part in every educational institution that focuses on empowering students with knowledge and education.

It is the public library's mission to assist with the dissemination of information and to ensure fairness in the distribution of services to all the users of the library. Public libraries have the responsibility to ensure that the information needs of their patrons are addressed especially since information is a vital necessity to operate effectively in a community. Addressing this responsibility is not a one-off undertaking. As Stilwell (1989: 15) writing nearly 30 years ago points out:

From time to time the library staff needs to establish the information needs of a particular community and to re-assess those needs in order to provide efficient and relevant information to the users.

Grover, Greer and Agada (2010: 1) agree with Stilwell (1989) stating that in order for libraries and information agencies to provide the necessary services in times of rapid and continuous change, librarians and information professionals must be able to make management decisions based on the changing needs of their constituencies. Focus needs to be on their actual needs and this can be achieved by implementing an information needs assessment within a philosophy of customer care. Furthermore, Grover, Greer and Agada (2010: 3) concluded that the rationale for performing an information needs assessment is embedded mainly in customer service, and that conducting such assessments necessitates the time of participating staff members – a valuable commodity in an organisation that must justify its expenses. The authors also state that the investigation of information needs concentrates on two parties, namely, the user of information and the agent that assists the user in obtaining the information required.

This study sought to determine what the University of South Africa (UNISA) students using the Adult Reference Department (ARD) at Msunduzi Municipal Library (MML) require in order to fulfil their information needs. It also investigated whether the students were getting what they required from the services offered by the library and if not, what services needed to be amended or upgraded, and what new developments or facilities needed to be introduced. The main focus of the study was thus concerned with the information needs of UNISA students and how the MML and the ARD assisted, and

could assist, students in satisfying those needs. Also assessed were the patterns of use among students using the library and the resources available.

According to Nwezeh (2010: 103):

Students need to use library and information centers for reading and for information searching. Libraries are sources of information considered an imperative for surviving in a modern socio-economic environment. Libraries store information resources, which have the great transforming power and the most effective means of enlightening the populace and disseminating scientific, technological and cultural achievements.

Chapter 1 is an introductory chapter in which numerous components of the study are presented. These components include the background of the study, an outline of the research problem and research purpose, key research questions that guide the purpose of the study, significance of the study, meaning of terms and concepts used in the study, the structure of the study and, finally, a summary of the chapter.

1.2 Background of the study

The MML is a public library that provides a service to the community of Pietermaritzburg and surrounding areas. The library comprises the main city library, eight branch libraries, and travelling and housebound services. The ARD is situated on the first floor of the main city library. It is a closed access area reserved for tertiary students and researchers and houses a collection of items that cannot be removed from the library premises. Accessing the ARD requires patrons to complete a request form with their personal details, institution's name, and what information they require so they can be provided with what they need. For security reasons patrons are required to leave some form of identification, which could be their identity document (ID), library card, student card or driver's license which is then placed on file while the patrons are using the library's item/s. The patrons are then issued with a seat number to proceed and use the reserved study space. If needed, students are allowed to make photocopies at the Internet café on the same floor. The Internet café has 96 computers connected to the

internet that can be used freely by the patrons. When students finish using the library resources, they return them and are given back their identity cards.

The ARD has 220 seats in total excluding the Internet café. Usage statistics, together with staff observations, indicate that UNISA students are the main users of the ARD and seek assistance in finding prescribed and recommended textbooks as well as accessing the UNISA database. Apart from the Internet café which, as mentioned, is freely accessible to any member of the library, the ARD also provides a study area which students are only allowed to use if they are referring to their own material. Students can also access journal articles and textbooks and make use of the Inter-Library Loan (ILL) service. The ARD thus provides an environment in which students can, ideally, put their information skills to use – finding, assessing, and using information effectively.

It is understandable that UNISA students need certain information to complete course projects, prepare for class discussions, seminars, workshops, exams and research papers. At the beginning of this research the UNISA Pietermaritzburg campus did not have a library. A library has subsequently been built but it is not yet fully functional and UNISA students remain reliant on MML to accommodate them and to satisfy their information needs (as it would do for any member of the community). Haider (2004: 231), referring to Pakistan, makes the point that, “the library is a central structure of a university and plays an essential role in achieving the objectives of higher learning.” This has certainly not been the case for UNISA students in Pietermaritzburg and surrounding areas and MML has, to a large extent, assumed that role. The UNISA (2016) online brochure states that:

UNISA library does not purchase prescribed books. Once registered, a student needs to read through a tutorial letter of a module registered for to find out what is expected of them, and which textbooks to buy, when assignments are due, how they will be examined and who their contact lecturers are.

As an Open Distance Learning (ODL) institution, the UNISA brochure says tuition is provided through print-based formats, except in the case where modules are offered online. However, the UNISA Pietermaritzburg campus has a computer laboratory with

35 computers connected to the Internet. UNISA students are able to access MyUnisa, a webpage which provides information relating to student affairs, learner support, examinations and assignments. Importantly, UNISA students are also able to access online facilities linked to the main campus in Pretoria, including library services. There are a range of databases available through which students can search for books, articles and other information sources. They are also able to request items through the ILL service (Ngcobo, 2017).

The UNISA library online services allow students to search for literature and request library training at the nearest UNISA branch. Training is provided on research skills, information retrieval skills, reference techniques, using e-resources and using reference sources. Students lose out on these services because of the low information literacy skills they possess including, importantly, the lack of computer skills. The latter is further undermined by an inadequate number of computers on campus to access the services offered to them by the institution. According to Ngcobo (2017) the first quarter (January, February, March) of the Pietermaritzburg UNISA campus computer laboratory shows that 724 students used the laboratory for general access, 8 612 students used it to access MyUnisa, and 3 056 students had online tutorials. The opening hours for the laboratory are 08:00 am to 16:00 pm making it difficult to accommodate those who are fully employed and studying part-time. This shortcoming results in the ARD having to accommodate those UNISA students who want to use the Internet to search for information outside of those hours. The MML's Internet café opens until 18:00 pm and the study area is open from 17:00 pm until 6:00 am the following day.

The ARD works as a support system in providing relevant information and services to the users. Identifying information needs will assist in detecting gaps that must be filled through acquisition, collection development and equipping staff with necessary skills through training courses or workshops. The MML has signed a Memorandum of Understanding (MOU) with UNISA. In terms of this, the two organisations partner with one another to help UNISA students and the community of Pietermaritzburg.

As MML is one of the five legal deposit libraries in South Africa, it is privileged to receive 70% of the legal deposit reference collection for free, with the remaining 30% of items

being bought by the library (Naidoo, 2015). The Legal Deposit Act No.54, 1997 “compels publishers to provide each copy of all types of works published in South Africa to be deposited in all legal deposit institutions”. Legal deposit status enriches MML’s collection profoundly and ensures that the availability of the majority of prescribed items published in South Africa (SA) are available to be used by UNISA students.

1.3 Statement of the research problem

According to Phoenix (2007), MML’s mission statement promises “to improve the quality of life of the people of the Msunduzi Municipal region by being responsible for their information needs and recreational needs.” This mission statement does not exclude any member of society, which is the reason why UNISA students are assisted by the library. The main problem facing MML was that the library was servicing a majority of UNISA students with their information needs as compared to other members of the community. This led to MML trying to establish why the students were using the library in numbers and if the students’ information needs were met. Knowing and understanding the students’ information needs would be beneficial to the organisation and would contribute towards the improvement of services obtainable at the library. Doing so would also assist or benefit UNISA Pietermaritzburg campus students in satisfying their information needs and thus help ensure that the mission statement of the MML was being realised.

Information needed by students to achieve their educational goals is, as mentioned above, available online on the UNISA website and on different databases that the institution subscribes to for the students’ benefit. UNISA students in Pietermaritzburg, have various challenges in accessing information online the main one being, also as outlined above, their campus computer laboratory only having 35 computers for students’ use. In addition, opening hours are not conducive for part-time students. In contrast, MML’s Internet café has 96 computers with Internet connections available to patrons as well as extended opening hours. Hence UNISA students prefer using the MML. Through personal observation by the researcher it is evident that students also lack the necessary skills to access the information that is available on the different platforms offered by the institution through MyUnisa. As a consequence, the ARD staff

end up having to help the UNISA students search and navigate their institution's website.

The ARD collection comprises tertiary materials from which the UNISA students get their prescribed and recommended textbooks. Since the students are the main users of the ARD there is pressure on the MML to accommodate the students when acquiring materials. To accommodate more students during exam times, MML management offers two of the library's auditoriums to be used on weekdays until 17:00. When the library closes at 17:00 the security guards usher students to the basement auditorium which remains open until 6:00 am the following morning. Furthermore, the Internet café (also as mentioned) remains open until 18:00 pm from Monday to Friday and 16:00 pm on Saturdays. The ARD monthly usage statistics together with her own and her colleagues' observations have led the researcher to believe that the ARD is acting as a support base for the UNISA students. The following services are offered by other MML departments and can be used by anyone:

- **Adult lending services** – all items in this department may be borrowed by the members of the library. Non-members may use the items in the library and are encouraged to join and be members of the library.
- **Visually Impaired Persons Corner** – this corner provides special services to blind or partially sighted individuals. The services include Daisy Readers for visually impaired persons (VIP) to use at home to listen to audio recordings; a document reader that reads normal texts to the listener; computers with Jaws - a computer screen reader programme, which allows blind and VIP library users to "read" the screen via text-to-screen output; a screen text magnifier or enlarger; braille magazines; and lastly, a computer with a braille keyboard.
- **Children's lending services** – provides children with books, toys, and magazines that can be used in-house or borrowed.
- **Periodicals department** – houses a rich collection of all periodicals published in South Africa dating back as early as 1800. The aforementioned Legal Deposit Act has ensured that the department receives one gratis copy of every item published in South Africa.

- **American Corner** – provides resources promoting the United States of America (USA), its history, lifestyle and culture.
- **Gandhi Corner** – promotes Gandhi's life, history and what he stood for as a person.

1.4 Research purpose and questions

The purpose of the study was to determine the information needs of UNISA students using the ARD of the MML and whether the department (and the MML) was meeting those needs. It was anticipated that by doing so, changes could, if necessary, be implemented thus better accomplishing the library's mission statement vis a vis the UNISA students.

In order to achieve the purpose, the following research questions were posed:

- For what purposes do Pietermaritzburg UNISA students use the ARD?
- What are the UNISA students' patterns of use of the ARD?
- What are the information needs of the UNISA students using the ARD?
- What are the UNISA students' information source preferences?
- What library services offered by MML/ARD are UNISA students aware of?
- What challenges do UNISA students face when using the library?
- How satisfied are UNISA students with the services available to them?

1.5 Significance of the study

The importance of the study lay in its attempt to develop the services offered by the MML by focusing on the information needs of users through elevating acquisition and collection development, possible staff training, and having a mutual understanding with UNISA. People's needs differ from time-to-time and are forever changing typically because of new and improved technology being consistently introduced. This study's focus was to identify and understand the information needs of the UNISA students using the ARD of the MML. According to Kaniki (1995: 9) "An information need is an individual

or group's desire to locate and obtain information to satisfy a conscious or unconscious need."

1.6 Scope of the study

In terms of a geographic area, the study was confined to the community of Msunduzi Municipality in Pietermaritzburg, KwaZulu-Natal, South Africa. Although there are eight branch libraries comprising the MML, the focus was on the main city centre library. The units of analysis were the UNISA students using the ARD. Because of time and other resource constraints associated with a coursework Master's Degree, the study was delimited to only the UNISA students that used the ARD to access information. Thus, students who were registered with other institutions and those who were UNISA students but using MML facilities other than the ARD at the time of data collection, were excluded.

1.7 Definition of terms and concepts

In order to understand people's needs and particularly those related to information and how they can be evaluated or identified, it is important to understand how the following concepts were defined for the purposes of this study.

- ***Distance education*** – Also known as distance learning is defined by Boadi and Letsolo (2004: 189) as "a form of study whereby the learner and the tutor are separated by geographical distance that serves learners who have limited time to spend on full time study due to a variety of reasons". The Department of Higher Education (DHE) in the Policy Framework for the Provision of Distance Education in South African Universities (2012: 5) defines distance education as "A set of teaching and learning strategies (or educational methods) that can be used to overcome spatial and/or temporal separation between educators and students." Distance education is not a single mode of delivery for students. It is an assortment of modes for the delivery of organised education. It evades the need for students to study the course by joining classes frequently and for long periods. In distance education it is important to create a learning atmosphere of

excellence by using a suitable mixture of various media, tutorial care, peer group discussion and practical sessions.

- **Information** – The term information is defined, interpreted and understood differently in various disciplines (Losee, 1997: 1). In its current context information commonly means to educate or to furnish with knowledge (Capurro, 1992: 2). Case (2002: 62) defined “information as data that has been processed and analysed to provide useful results called information.” The definition adopted and applied was that of Shenton (2007: 4) who defined information as “something that students need during their studies when they construct meaning about subjects in the process of learning.”
- **Information needs** – According to Ikoja-Odongo and Mostert (2006: 147) information needs is defined as “a requirement that drives people into information seeking. An information need evolves from an awareness of something missing, which necessitates the seeking of information as a method to solve problems.” Case (2002: 69) states that information need “is a function of extrinsic uncertainty produced by a perceived discrepancy between the individual’s current level of certainty about important environmental objects and the criterion state that he seeks to achieve.” According to Wilson (2000: 49) “information needs are influenced by a variety of factors such as the range of information sources available; the uses to which the information will be put; the background; motivation; professional orientation and individual characteristics of the user.” However, Hawkins and Baker’s (2005: 470) definition of information need best applied to this study. They state that “it refers to the required elements for students to achieve an educational objective.”

1.8 Theoretical framework

Libraries are hubs for all learning levels including primary, secondary and tertiary education. They also serve recreational purposes. Libraries play a major role in supporting learning and teaching, and also facilitate access to information enabling

communities to develop to their full potential. The focus of this study was on identifying and assessing the information needs of UNISA students using the ARD of the MML. It was anticipated that the findings would go some way towards, supporting the library and information needs of distance learners in this technology age.

Huysamen (1994: 2) notes that a research project should be linked with one or other theory, because the universally valid nature of theories and models enhances the project's appeal and prevents it from generating an isolated piece of knowledge. A theory is identified by Huysamen (1994: 6) as "a statement or a collection of statements which specify the relations between variables with a view to explaining human behaviour in some other population."

Various models relating to information needs and information seeking behaviour have been identified in the literature including those of Dervin (1983, 1996); Ellis (1989, 1993); Kuhlthau (1991); and Wilson (1981, 1996, 1999). However, Wilson's 1996 model and the extension of Wilson's model for information behaviour of distance education learners (Tury, Robinson and Bawden: 2015) were selected as a theoretical framework to guide this research. The extension of Wilson's model for the information behavior of distance learners was considered appropriate for this study as it focuses on students embarking on distance learning and was used to elaborate on the context of information needs in distance learning. The model gives a breakdown of the variables, activating mechanisms, information processes and use, sources and their characteristics that affect distance learners' information behaviour. A comprehensive explanation of the selected models will be presented in more detail in Chapter 2.

1.9 Research methodology and methods

Research methodology includes the research design and methods that were used in the study. Research, according to Rugg and Petre (2007: 31), is about finding out something new, which can be new to the researcher or new to someone else. Given that this research identified the information needs of UNISA students that are using the

ARD, it qualifies as empirical research. A quantitative research design supported by the positivist or scientific paradigm, was adopted. Thompson (2002: 40) defines quantitative research as “research that emphasizes the use of numbers and statistics to analyze and explain social events and human behaviour.” The target population for the study was all the UNISA students using ARD for their information needs. The population was identified when students submitted their request forms for an item needed. Self-administered questionnaires were administered to participants as a data gathering technique. The methodology used in the study is discussed in more detail in Chapter 3.

1.10 Structure of the study

The remainder of the study is structured as follows:

➤ **Chapter 2 – Literature review and theoretical framework**

The review of relevant literature is vital to identify issues related to the research topic. Chapter 2 will look closely at what other researchers have done in the past. It will provide a historical background on information needs and distance learning and identify gaps where more research is needed. The theoretical framework of the study will also be outlined and discussed showing how it links to the purpose of, and research questions underpinning, the study.

➤ **Chapter 3 – Research methodology and methods**

This section will present and discuss the important components of the research process. The research design will be identified; the sampling technique selected will be described and justified as to why it was chosen; the data collection instrument and procedures used will be elaborated on and, finally, the method of data analysis used will be discussed.

➤ **Chapter 4 – Research results**

This chapter will present the findings of the study collected via self-administered questionnaires which were administered to respondents. Findings will be presented in the form of tables, bar graphs and pie charts.

➤ **Chapter 5 – Discussion of the results**

The results, as presented in Chapter 4 will be discussed in this chapter. This will be done, wherever appropriate, in terms of the literature reviewed and theoretical framework.

➤ **Chapter 6 – Conclusions and recommendations**

In this, the final chapter, a summary of the study will be given. The main findings will be presented and the conclusions emerging from the findings will be put forward. The chapter will end with recommendations being given and suggestions for further research being made.

1.11 Summary

This chapter introduced and provided the background to the research which investigated the information needs of UNISA students using the ARD. It provided a statement of the research problem, research purpose and key questions. The significance of the study as well as scope of the study were presented. The terms and concepts used in the study were clearly defined and the preferred meanings given. The theoretical framework underpinning the study was briefly identified as was the methodology used in the study. Lastly, the structure of the study which consisted of six chapters was outlined.

Chapter 2, which follows, introduces in detail the theoretical framework underpinning the study together with a review of the literature related to the study.

CHAPTER 2 – THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Introduction

This chapter looks at the progress in the field of human information behaviour by focusing on theories and literature regarding information needs of students enrolled in distance education institutions. It discusses the theoretical framework underpinning the study. This is followed by the review of the relevant literature with a particular emphasis on the information needs of distance learners (which the UNISA students were). As indicated in the previous chapter, the study will provide a viewpoint on the current and future needs and necessities of students in the distance education setting from a library perspective.

2.2 Theoretical framework

Fisher, Erdelez and McKechnie (2009: 2) provide two definitions of theory which give distinct meanings of what theory is, what it looks like and its function in the field of research. The definitions are as follows:

- (a) A theory is the body of generalizations and principles developed in association with practice in a field of activity and forming its content as an intellectual discipline.
- (b) It is also defined as a system of assumptions, accepted principles and rules of procedure devised to analyze, predict, or otherwise explain the nature or behaviour of a specified set of phenomena.

Theories are offered to explain the basic meaning of information, the reasons why individuals seek information and why they behave the way they do. Theories explain the ways in which information is assimilated, retained and applied. A theoretical framework is a structure that can hold and support a theory of an investigation, which has an effect on how investigators plan research and how they gather and evaluate data. According to Kumar (2014: 57)

the theoretical framework consists of the theories or issues in which your study is embedded. A theoretical framework delivers a scientific explanation for the research, and generally shows that the investigation is not coming out of nowhere but is based on genuine grounds and on a scientific theory.

A theoretical framework will introduce and describe a theory or a model chosen which will explain why the research problem exists. The theoretical framework underpinning this study was adopted from Wilson's 1996 model of information behaviour, and will be discussed in more detail later.

2.3 Information seeking behaviour models

An information seeking behaviour model works as a roadmap towards the objectives, of identifying and assessing information need. This it does by drawing different aspects of concepts used in the model into the investigation and using them to formulate questions. According to Case (2012: 135):

A model is a framework for thinking about a problem and may evolve into a statement of the relationships among theoretical propositions. In the field of information behaviour most models are presented in the form of statements or diagrams that describes an information seeking activity.

Fisher, Erdelez and McKechnie (2009: 2) defined a model as "a tentative ideational structure used as a testing device." Models are most beneficial at the explanation and estimation phases of understanding occurrences. The models reviewed in this section will not be discussed in-depth, but as they are the central and common models used in previous information behaviour studies, they are highlighted to provide a theoretical and historic background. Presenting information seeking behaviour models through illustrations makes it easier to understand their content and to focus on specific problems.

There are numerous information seeking behaviour models developed and introduced in the field of information studies to explain the user's information needs, information behaviour and information seeking behaviour. According to Wilson (1999: 249), the

models address different issues and relationships at various levels of information behaviour. Wilson (1999) further acknowledges that the models complement rather than contradict one another. What models are adopted depend on the researcher's state of inquiry and what he or she wants to accomplish. Popular models include those by Dervin (1996), Ellis (1989, 1993), Kuhlthau (1991, 2004) and Wilson (1981, 1996, 1999). These models have gained strength and popularity in the field of information behaviour and have been approved as a foundation for further studies by researchers. It is the latter's model (which has gone through a number of iterations) which is highlighted below. Of all the models mentioned above, those of Wilson have been the most influential and the extension model obviously draws heavily on this.

2.3.1 Wilson's model of information seeking behaviour

Wilson's model, according to Fisher, Erdelez and McKechnie (2009: 34), is a very common model which is not only welcoming to theory that might be of assistance in explaining the more important features of human behaviour, but also to numerous methods of information seeking behaviour and information searching. Furthermore, Fisher, Erdelez, and McKechnie (2009) explain that the model does not result from any theory planned by an author or scientist, but from an investigation and thorough scrutiny of the information behaviour of social workers and their managers. Case (2012: 137) notes that Wilson has published several versions of his information seeking behaviour model, which show how his thinking developed over time. Wilson's 1981, 1999 and Wilson and Walsh's 1996 information behaviour models have been expanded over the years and take into account several elements acknowledged in other models.

2.3.2 Wilson's 1981 model

Fisher, Erdelez and McKechnie (2009: 31) explain that "The first set of models, circulated in 1981, had their roots in a doctoral conference presentation at the University of Maryland in 1971, after an effort was made to plan the procedures involved in what was known at the time as 'user needs research'." According to Wilson (1999: 249), "the early unpublished model of 1971 enclosed the foundation of the most regularly quoted or mentioned model of 1981, which set out the important kinds of unexpected issues

that yield ‘a need for information’ as well as the obstacles that may stop the person from taking the action to seek information.” As an outcome of Wilson’s work on the Information Needs in Social Services (INISS) Project (Wilson and Streatfield, 1979), “a sequence of interconnected models was presented in his 1981 paper, which has turned out to be one of the most quoted publications in the field of Library and Information Studies (LIS).”

The first model was published in 1981 and had 12 components that began with the “information user”. Wilson (1981) believed that an information user has a “need” that he wants to satisfy, which leads a user into information seeking activities, prompting the user to engage in different activities to satisfy that need with the results leading to success or failure. A significant feature of Wilson’s 1981 model was the acknowledgement that people play an important part in sharing and exchanging information in the process of information use, making people themselves, another important source of information. This model was later described by Wilson (1981) as

a macro model of the gross information seeking behaviour, suggesting that it implies hypotheses about information context without making them explicit, and that it does not indicate the processes whereby a person is affected by context, nor how context then affects the user’s perception of barriers to information seeking.

Wilson’s 1981 model, modified in 1991 confirmed the importance of Ellis’ list of features of information seeking behaviour, when he located them within the context of an information need rising out of a condition.

2.3.2.1 Wilson’s 1996 model

In 1996 Wilson decided to expand his version of the 1981 model of information behaviour and the “information seeking behaviour model” was the result. The model focused on the user as a central point to everything. Aspects of the 1981 model were retained, specifically the likely types of hindrances which must be overcome by the information searcher, and the likely methods his information seeking may take. In the 1996 model Wilson integrated Ellis’ “behavioural characteristics” of information seeking

(Ellis, 1989) which defined the actions of the information seeker involved in the “active search” method of information seeking. Dervin’s (1996) sense-making theory could be related to Wilson’s model, in that it deals with the awareness of a need for information. One of the strengths of the model is that it currently remains with as much validity as at the time of its formulation (Godbold, 2006: 12).

2.3.2.2 Wilson’s 1999 model

In 1999 Wilson defined the 1981 model as a shortcut model of unsophisticated information seeking behaviour in that, for example, it did not specify the actions where an individual is affected by circumstances. This version of Wilson’s model was presented in 1999 when Wilson stated that information searching behaviour is a subsection of information seeking behaviour. While the 1999 model is based on the 1981 model, it emphasises the complex context of information seeking. In this regard Wilson identified new factors such as decision making, psychology, and others. The 1999 model is considered complex as it explains why some needs invoke information searching way more than others, why some sources of information are preferred by students more than others, and why individuals will or will not pursue a goal effectively. According to Wilson (1999: 251)

The model suggests that information-seeking behaviour arises as a consequence of a need perceived by an information user, who, in order to satisfy that need, makes demand upon formal or informal information sources or services, which result in success or failure to find relevant information.

If the information-seeking is effective, the user then uses the knowledge found which may either fully or partially fulfil the apparent necessity or fail to do so. In the latter case, the search process will need to be restarted.

2.4 Theoretical framework underpinning the study – Wilson’s 1996 model

The model that was chosen as the theoretical framework to guide this research was Wilson’s 1996 model of information behaviour as presented in Figure 1 below. The model was considered appropriate for the study as it provided a roadmap for achieving the purpose of the study, namely, identifying and assessing information needs. Different

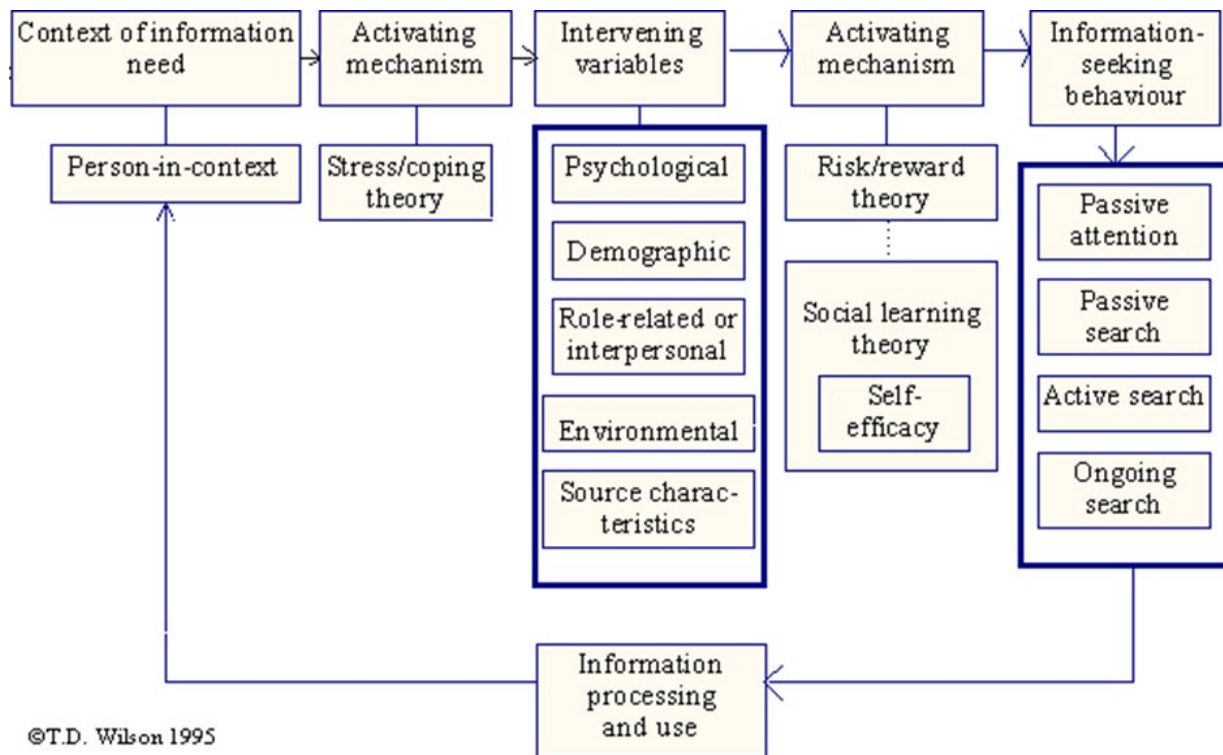
aspects of the concepts used in the model were drawn into the investigation and used to formulate questions. Wilson's 1996 model of information behaviour was considered a substantial amendment of his 1981 model to which various fields were added (Wilson: 1999). Wilson (1999: 257) had the following to say about the modified model:

The model offers possibilities for explaining why some needs do not invoke information-seeking behavior; risk/reward theory may help to explain which sources of information may be used more than others by a given individual.

Wilson (1999: 257) notes that 1996 model "remains one of macro-behaviour, but its expansion and the inclusion of other theoretical models of behaviour make it a richer source of hypothetical and further research than the earlier model." A further motivation behind choosing this model was that it has proven to be successful amongst other researchers who investigated various aspects of information behaviour. For example, Naidoo (2013) used the 1996 model in her study of the information behaviour and information needs of managers in the Msunduzi Municipality. The model clearly represents the relationship among various stages in information needs and seeking. Mostert and Ocholla (2005) also used Wilson's 1996 model to underpin their study entitled "Information needs and information seeking behaviour of parliamentarians in South Africa." They acknowledged that the model recognises that people can be possible sources when searching for information.

Closely aligned with the present study was that of Tury, Robinson and Bawden (2015) who conducted a case study of the information seeking behaviour of distance learners at the University of London. The aim of the investigation was to obtain an understanding of the information needs of distance learners. Wilson's 1996 model of information behaviour was nominated as a theoretical framework to guide the research. Figure 1 below is Wilson's 1996 model of information behaviour.

Figure 1: Wilson's 1996 model of information behaviour



The above chosen model was used in conjunction with another model known as the “Extension of Wilson’s model for the information behaviours of distance learners” (Tury, Robinson and Bawden: 2015). Wilson’s 1996 model was used as a starting point as it covers the basics of information needs. The extension of Wilson’s model was used as it complements the first model and, importantly, focuses on distance learners and their needs which was relevant to this study. According to Tury, Robinson and Bawden (2015: 319) and as can be seen in Figure 2 below, the context of information need is the exclusive information setting of distance learner students which comprises time, distance and pedagogics. The activating mechanism field (see Figure 2) relates to why the students seek information, which activates and motivates information behaviour. This field identifies if students have the skills for accessing the information they need. These variables identify the barriers encountered by students who do not have a library at their institution. The variables could be psychological or demographical, including the programme and the mode of study. Section one of the questionnaire (see Appendix 3)

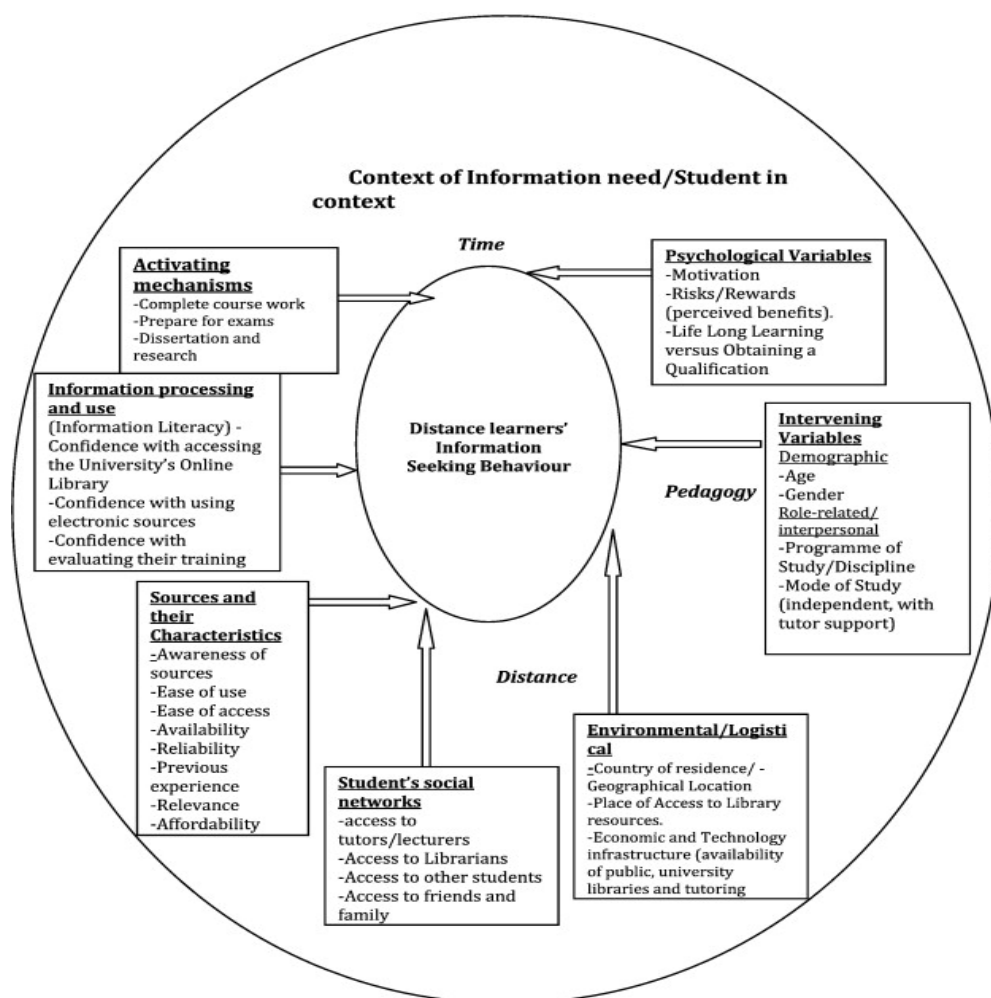
identified all the variables involved in this field. Information seeking behaviour mainly focused on the sources students consulted for their needs when they came to use the ARD. The information processing and use field on the model determined the ability of the students to use information to achieve their information need by completing assignments, preparing for exams and getting their qualifications.

The criteria used by Tury, Robinson and Bawden (2015: 314) for choosing the model of information behaviour were as follows:

- The model has to be relevant to numerous settings, occupations and parts.
- It has to include matters of information needs and bases.
- It needs to be grounded in empirical investigation and remained verified in successive studies.
- It needs to relate to an education background.
- It needs to include distance learning variables, such as access to peers and additional systems, technology issues and information resources.

The extension of Wilson's model for the information behaviour of distance learners was thus found to be the most appropriate model, especially for considering the distance learning context (Tury, Robinson and Bawden, 2015). The model extends some of the variables of Wilson's first model, to make them more significant to distance learning. The extra variables are: the context of information need and person-in-context which relates to the learner's individual and other role-related features such as age, gender and level of study. Activating mechanisms relate to what motivates the student to seek information and study. Figure 2 below represents the extension of Wilson's model.

Figure 2: An extension of Wilson's model for the information behaviour of distance learners



Source: Mostert and Ocholla (2005)

Using the extension of Wilson's model (2005), the students would have to share their sources of preference, and the reasons behind the choices they made. Reasons might include: they are easy to use, relevant to their needs, easy to access, or students have previous experience using certain sources. In addition, were the students aware of other different sources available in the library? The environmental or logistical concept is fully explored by the question that requires students to identify the challenges they face when using the library. This might be the students' geographical location and the

economic and technology infrastructure. The latter could include UNISA not having a functional physical library in Pietermaritzburg and students are therefore “forced” to use the MML to fulfil their information needs.

The extension of Wilson’s model (2005) has a “student’s social networks” variable which is mainly about access to tutors, lecturers, librarians or other students. This variable highlights the main use of social networks among students related to distance learning. The intervening variable to students’ social networks involves the method of learning, the pedagogy used in distance learning. According to Tury, Robinson and Bawden (2015: 319) “this extension leaves unchanged the structure of the model, expressing the information seeking process, while allowing a concentration on the aspects of most importance for distance learners.” The strength of this model is its ability to modify the background factors affecting access to information seeking.

2.5 Literature Review

A literature review is defined by Christiansen (2010: 12) as a discussion of all the significant and relevant research that has been previously done in the field that is being researched. A literature review puts a research project into the context of earlier or previous investigations by displaying how it fits into a certain field. All researchers are part of a bigger research community, in a way that they extend the findings of other researchers. In a literature review it is important that the researcher shows that he or she has read extensively on the subject being researched and is familiar with other studies that have been previously published. Leedy and Ormrod (2010: 66) state the main function of a literature review is to “look again” meaning (re + view) at what other researchers have done on a similar topic.

Leedy and Ormrod (2010: 66) note that a literature review has various other benefits which are as follows:

- It proposes new ideas, perspectives, and approaches on how to go about the subject.
- It informs the researcher about other investigators who conducted work in a similar topic.

- It notifies the researcher of how others have handled methodological and design issues.
- It can reveal other sources of data for consultation and more information.
- It can introduce the researcher to measurement tools developed and used effectively by others.
- It can show other means of dealing with difficult situations that may be similar to one's own.
- It can help the researcher interpret, analyze and make sense of their research findings.
- It can boost the researcher's confidence that their topic is relevant and worth studying.

In order to gather information relevant to the research topic, information sources such as books, journals, dissertations and those available via the Internet were consulted. This section of the chapter will consist of different sub-sections that provide more information on distance learners' needs, library services offered to distance learners, information needs of distance learners, the role of the librarian, emerging technologies in the library and major problems experienced by students. The topics that are discussed in this section will link with the key questions of the study as outlined in Chapter 1 and take into consideration the theoretical framework chosen for the study.

2.5.1 Distance education

Since the 1990s distance education has been growing rapidly and is currently one of the fastest growing developments in higher education. According to Jowkar (2009: 11), distance education has made a notable improvement over the last 20 years and has now gained an extensive reception as a practical alternate learning delivery system. The growth of distance education is due to a number of reasons, but mainly due to the significant development of Information and Communication Technologies (ICT). Nwezeh (2010: 103) describes distance learning as:

The formal learning received while the student is on a location outside the university campus, the teacher and the student are expected to have minimal

physical contact but the emphasis is the reliance on electronic communications on both sides.

Nickel and Mulvihill (2010: 88) explain that it is the “learning that takes place when the student is not on-site or at the physical location of the instructor, where the instruction will be delivered to the students by means of technology.” Moreover, Tury, Robinson and Bawden (2015: 313) point out that:

Distance education/ learning offers a huge advantage to learners and to educational institutions, as it enables educational providers with limited resources to increase their student numbers without investing in physical facilities, allowing learners to access any course that interests them.

Boadi and Letsolo (2004: 189) note the important role played by distant education in providing opportunities for further study. They state that:

Distance education was created to give a chance to study to those who, for financial, social, geographical or medical reasons could not go for an ordinary school or university. It also provides opportunities to working people to have access to education so that they would not have to leave their jobs in order to attend classes.

Nwezeh (2010) noted that distance education is getting more popular lately since it is cost saving to both universities and students. However, distance learning depends much on education technologies, which are vital for interacting with a large group of people. A study done by Mbatha and Naidoo (2010:65) on connecting the transactional gap in open distance learning (ODL) points out that UNISA is the fifth largest ODL education institution worldwide and serves about 300 000 learners, with students coming from both rural and urban areas. Mbatha and Naidoo (2010: 65) make the important point that:

The higher education sector has embraced ICTs, which are seen as prime motivators behind the higher education change as the interplay of technological

development and socio-economic change shape the process of teaching and learning.

Jowkar (2009) notes that one of the essential support systems that play a vital role in student life is the provision of a library and its resources; hence library support is seen as the key for their studies. It is to the library's role in distance education that the discussion now turns.

2.5.2 Library services to distance learners

Distance education has had an outcome not only on the provision of education, but it has also essentially affected facilities that maintain it. Jowkar (2009: 11) stated that "one of the most essential support systems influencing the quality of the courses offered in distance education is the provision of library and information services and resources." Thus, providing distance education has important consequences for library services, and Tury, Robinson and Bawden (2015) found that there is an increasing literature on how libraries have modified their facilities to house distance learners. Admission to satisfactory library facilities and the use of their material is critical in post-secondary education irrespective of where learners, faculty and programmes are situated. Jowkar (2009: 11) believes that the libraries can make distance learning both the most enjoyable and the most difficult experience for distant students.

Hufford (2004: 4) mentioned in the article titled "Library support for distance learners", that most librarians believe a contributing factor to the success of the course offered at distance learning institutions, is the ease with which students can complete the library research required, and finish assignments that professors give them. Library support is thus a significant part of any academic programme including those programmes accessible by means of distance learning.

To deliver real library support to distance students, libraries must evaluate the needs of their patrons regularly, and try to comprehend how students choose which library to use, and what their expectations in terms of resources and facilities are. Students' course necessities have an impact on the degree of library use, and students who have

received library instruction are more likely to anticipate that their courses need additional library research. According to Tipton (2001: 395)

the annual figures stated by libraries offer no awareness on the value of the service rendered [to distance students] because such measures emphasise on the library's internal processes rather than on its customers or users. Users of the library are the only ones who can rationalise the existence of the library.

Barsun (2002: 59) makes the important point (given the discussion above) that “institutions that offer distance education courses are responsible for providing commensurate library services and resources to their students.” Barsun (2002: 59) goes on to say “whether or not the institutions fulfil that responsibility, the students may choose to use the public library, instead of the institution's library.” This leads to the role of the public library in distance education which is discussed below.

2.5.3 Distance learners and nearby public libraries

Public libraries play a significant part in the development of the community. According to DeMaagd, Chew, Huang and Khan (2013: 110) research done in the United States of America (USA) on the use of public library facilities by library patrons, found that public libraries are now perceived as more than store-houses for books, but are also accountable for the distribution of online and offline information. Public access to computers is therefore becoming progressively common as more people appreciate the need for Internet access. Barsun (2002: 67) points to there being various explanations why students may prefer to use their public library instead of their institution's library. One such reason is that students may be more familiar with their public library. Furthermore, the public library's resources may be more easily accessible than those of the academic library. Nickel and Mulvihill (2010: 88) in their article on strategies for serving distance learners, stated that distance learners use the public library due to “the need for a physical place to go, a place that may be quieter and have more study space than their home or office.” However, Behr and LaDell-Thomas (2014: 140) point out that “public library collections are established to meet the needs of the patron, and that most public libraries do not have the finance or capacity for resources that back in-depth

academic research.” Further barriers faced by public libraries when trying to assist distance students include staffing, hours of operation, and interlibrary loan costs, to mention a few (Behr and LaDell-Thomas, 2014: 140). In terms of staffing, the authors note the divergent views of public library staff vis a vis serving distant learners:

Public librarians may feel irritated by trying to fulfil the demands of unaffiliated distance learners with insufficient resources especially for those institutions that are for profit gain; whereas other librarians feel that distance learners present an exclusive set of encounters, offering the public library as the place where distance learners may come for face-to-face contact which can be very interesting (Behr and LaDell-Thomas, 2014: 143).

In similar vein Nickel and Mulvihill (2010) point out that some public libraries have seen their usage by distance learners as a huge marketing tool while others have seen it as a huge load. Nickel and Mulvihill (2010: 92) state that “distance education students should not expect the local public library to accept the responsibility to supply printed matter, databases, and ILL to students for courses”. The authors also noted that public libraries have a diverse, but not less significant set of tasks. This, however, will not stop distance learners from choosing to use public libraries, and public libraries will, in turn, remain an information source for distant students. Nickel and Mulvihill (2010: 90) view public libraries having much to offer, and this is thanks to well-trained staff and consortial database purchasing. Librarians in public libraries thus often have sufficient knowledge and resources to meet the needs of distance learners.

The study by Bhatt (2010: 149) revealed that public libraries have a huge impact on reading and academic outcomes of the students and that reading alone has positive consequences for children, adults, educators and policy makers. The study pointed to the need for libraries to play a bigger role in marketing and advertising the services they offer to the community at large. The researcher’s observation is that when distance learners are using the library, they are most likely looking for services that include reference support, dependable access to online material, satisfactory service hours, quick distribution of items from the library’s collection, and the ability to borrow resources from other collections. Another important consideration, especially when

distance learners are concerned, is that physical accessibility is a fundamental measure of the equal chance to take part in activities, especially when distance learners are concerned. Park (2012) researched the physical user-friendliness of public libraries as providers of various information resources and found that distance from the library was a factor in terms of whether the library was used or not. Nickel and Mulvihill (2010) mention that distance users are not always fully knowledgeable about the facilities and services they are allowed to use from their institution's library and their distance from the institution makes it difficult for library staff to market their services to them.

Whether students know about services offered at their institution's library or not, they may still pursue assistance at the local library and public libraries have to help distance learners. While the onus is on academic libraries to ensure that students have access to the assistance and services they need to finish their work, the role of the public library in distance learning will remain. According to Bishop, Tidline, Shoemaker and Salela (1999: 362):

Public libraries across the country are adjusting their services to better meet the needs of their communities in the 21st century. This comprises of the consideration of improvements to library services that are attainable through the effective application of information technology which is very useful and helpful to distance learners.

2.6 Studies on information needs of distance learners

The literature search revealed that numerous studies concerning the information needs of distance learners have been conducted around the world. However, few concern the role of the public library specifically and, as a result, the discussion below includes research focusing on libraries of the educational institutions offering distance learning as well. Even though Africa does not have much research on the subject, researchers are trying to close the gap. This section will provide a brief overview of these studies, by country/region, highlighting relevant points from each.

2.6.1 United Kingdom (UK)

Rowland and Rubbert (2001) evaluated “The information needs and practices of part-time and distance learning students in the setting of educational and social change through lifelong learning.” The authors noted that universities and their libraries represent physical information hubs, which persons have to visit to obtain the information they need. Their findings pointed to the importance of ICT stating that “the information needs and practices of part-time, distance-learning and mature students in a lifelong learning environment have been rapidly transformed by the use of ICT in the higher education sector” (Rowland and Rubbert, 2001: 758). They pointed out that even in outside educational institutions, it is evident that individuals make increasing use of an emerging communal ICT infrastructure, thus creating their own information space and vision of a learning society.

Bremner (2001: 54), in a study entitled “Meeting the information needs of distance learners – the Open University response”, noted that distance learning has become more dominant amongst other UK higher education institutions and that it has started to be seen by some as the future of education, particularly as technology has now made distributing courses to students at a distance a hands-on answer to teaching ever greater numbers. However, Bremner (2001) reiterated that for many the role of the library was merely to offer resources for the researchers of the institution and information for course writers. It was decided by the Open University’s (OU) that it would be unreasonable to offer a library facility to OU students. This was because the course material students were provided with would meet their utmost information needs, and those needs not met could be provided through a public library, or by a nearby academic library. Bremner (2001) surveyed 1 500 students from all courses and at all levels to ascertain whether their needs were being met. Over half of the students who have used information other than that provided were finding the information via public libraries and a third of the students, had used the public libraries to acquire resources or as a space to study.”

In terms of determining information needs Shenton (2007) investigated the strength and weaknesses of examining information needs through scrutiny of library proposals made by patrons. Shenton (2007: 3) stated that the absence of widely agreed approaches based either on a single technique or a combination of techniques reflects the difficulty of directing an effective investigation into people's information needs. Shenton acknowledges that the investigation of information needs is a challenging task and describes the process of identifying information needs as one of the "grey areas" of library research. In similar vein, Shih, Chen, Chu and Chen (2012: 526) observed that:

Information needs are dynamical and complex psychological circumstances of users, which makes it hard to detect and obtain their structure. Information needs can be echoed in information seeking and obtained information.

Shih, Chen, Chu and Chen (2012: 529) conclude that information needs can be presented by the user, behaviour and information. Their study entitled "Enhancement of information seeking using information needs radar model", used three components to investigate the request of a piece of information, namely, content user, content usage and content feature (Shih, Chen, Chu and Chen, 2012).

Research on the delivery of distance learner support services at universities in the UK by Brooke, McKinney and Donoghue (2013) commissioned and conducted in partnership with the Distance Learning Support Services (DLSS) aimed to achieve a better understanding of the needs and expectations of distance learners. A clear picture was recognised in that when original changes were made to DL support services, a profound understanding of individual elements was compulsory to provide a tougher foundation for more essential modifications.

2.6.2 United States of America (USA)

Through personal observation the researcher has noticed that research on information needs not only takes place in the library surroundings, but anywhere students feel they will find information relevant to their needs. Research conducted by Slade (2004: 7) on "library services for distance learning" stated that academic libraries were struggling with the task of providing support to distance learners. Slade (2004: 8) pointed to the

need for research to provide an information base for the improvement of best practices. One of the recommendations emerging from the study was that libraries with Web connectivity had the capacity to make online database searching, full-text retrieval, remote reference, electronic communication and document delivery available to the students.

Holloway (2011) investigated “Outreach to distance students: a case study of a new distance librarian.” Distance students involved in the study were diverse in both age and ethnicity. Some were mature learners who had slight knowledge of electronic resources, whereas some faced language barriers. Holloway (2011: 26) found that there was a growing number of young students who were very relaxed with their community library and would like continue using it notwithstanding its deficiency of resources. Holloway (2011) also found that the younger students were technologically capable in terms of using the Internet for research but were lost when attempting to use library resources. Holloway (2011: 27) noted that “promotion and advertising are important aspects in making sure that students are aware of and able to use resources when the physical library does not exist.”

The study of Cooner, Williams and Steiner (2011) investigated the promotion of the library as a place for distance students. The research focused on two university libraries in the US and findings revealed that the challenges faced by the libraries in serving distance learners were rooted in communication, geographical locations, technology and resources. The authors noted that without access to library resources and services, all other efforts in assisting distance learners with their information needs were worthless, and shifting to electronic resources allowed all students access, regardless of geographic location. As a solution to these challenges the authors mentioned that for distance students specifically, e-resources would facilitate much needed instant access (Cooner, Williams, and Steiner, 2011).

An investigation was done by Alewine (2012) entitled “Listen to what they have to say! Assessing distance learners’ satisfaction with library services using a transactional

survey.” The main purpose of the study was to gather valuable information from the students and to serve as a communication device that inspired students to seek additional assistance in their search for information in the library.

2.6.3 Asia

Distance learning in Iran is in its infancy having only been introduced in 2004. Shiraz University was the innovator of distance education in that country. According to Jowkar (2009: 11) “most of the institutions in Iran do not offer enough support for distance learning students to follow their courses effectively, particularly when it comes to students’ information needs.” To offer students with the sources they need in an appropriate and well-organised way, Jowkar (2009) believed that researchers needed to establish user necessities, favourites and technological abilities. Distance education is much dependent on electronic communications and because of unanswered questions in this regard Jowkar (2009) embarked on a study of distance education and the role of library services in Iran. The research was done to assist in deciding on the types of library support structures distance students at Shiraz University would like to have. It was found that the main problem of the respondents was them not finding a library with relevant, good quality information.

In India, Mahajan (2009) explored the information seeking behaviour of students at the Punjab University. The study discovered that users are more or less fulfilled with library materials and services, but needed training in the use of online information. As Ganaie and Khazer (2014: 18) pointed out, information needs are fulfilled only when an information seeker has the skill of searching for accurate and relevant information that meets his needs. It is thus essential to not only have adequate knowledge of information sources, but also of the tools that aid in accessing those sources.

Tripathi and Jeevan (2009) examined the issue of quality assurance in distance education libraries to determine how libraries could grow their present services to distance learners and to present new ones to improve the excellence of services they offered. The study was conducted at Indira Gandhi National Open University in New Delhi. The ODL system in India comprises a national open university, 13 state open

universities and 106 dual mode institutions. Tripathi and Jeevan (2009: 47) stated that quality assurance can be used as a mechanism for maintaining and enhancing quality in an ODL system. Quality assurance, as the term suggests, is for improving quality, but not for achieving some particular short-term goal or target. It implies working in the light of long-term goals and enhancing quality of the services and products of the institution. As a result of their investigation Tripathi and Jeevan (2009: 49) agreed that library support for distance learners is crucial and contributes significantly to the teaching and learning taking place in ODL.

The literature review of the Asian continent basically shows and acknowledges the significance of library support for distance learners and that the provision of quality library support is the need of the hour.

2.6.4 Africa

University libraries across the world are developing library and information services for distance learners and Africa is no exception, given that distance education is gaining popularity on the continent.

2.6.4.1 Ghana

According to Eygen-Gyasi (2010: 63) “as a way of reducing costs of tertiary education and at the same time increasing admission to tertiary education, Ghana adopted the distance education after a number of surveys to assess the distance education needs.” Kwadzo (2014) conducted a survey to determine the library use and the needs of students of the College of Agriculture and Consumer Sciences at the University of Ghana. The findings showed that the majority of students used the campus library facilities when on campus. The results revealed that the students did not obtain any library orientation or user education. The need for user education was pointed to by the students, as was the need for more computers, the acquisition of more current books, and the extension of opening hours in the evening.

Agyen-Gyasi (2010) investigated “The academic librarian’s role in maximizing library use in Ghana.” The findings showed that librarians must not only stay competent navigators of each medium in order to help library patrons but they have to be equipped with skills necessary to seek and find information themselves (Agyen-Gyasi, 2010: 20). It was recommended that students should be exposed to the resources of their respective libraries (Agyen-Gyasi, 2010).

More focused on distance education was Larson’s (2016) study which examined the information needs of distance learners of the Winneba Study Centre of the University of Education in Ghana. The main objective was to examine the information needs of those students who lived far away from the campus. Findings of the study revealed that the majority of students lacked the ability to search for information electronically and did not possess the basic skills to retrieve information manually. It was further revealed that even though students had challenges in retrieving information manually they seemed to prefer print material more than material in digital format. Of concern was the finding that students did not use the library to support their studies as they believed they had enough material to use for their assignments (Larson, 2016).

2.6.4.2 Nigeria

A study by Nwezeh (2010) on libraries and distance education was carried out in four Nigerian universities running distance education programmes. Nwezeh (2010: 107) stated that distance learning in Nigerian universities was an attempt to resolve the conflict between the aspirations for more education and an ever-increasing number of Nigerians. Nwezeh (2010: 109) found that “a variety of techniques have been employed to provide library services to distance learning students.” The study also made known that one of the shortcomings of distance learning was the inadequate use made of library resources for information and self-development by students. Furthermore, the lecturers made use of their own lecture notes and textbooks in teaching which discouraged the students from using the library and getting more information on a certain subject.

2.6.4.3 Kenya

Kavulya's (2004) study concerned the challenges that selected universities in Kenya faced in the provision of library services for distance education. The study revealed that students of the four selected universities had access to their local public libraries and Internet resources, and in terms of the latter, the students could access the library information websites from their computers in the comfort of their homes.

2.6.4.4 Tanzania

Luambano (2016) examined the information seeking behaviour of undergraduate distance learning students of the Open University of Tanzania (OUT). The thrust behind the study according to Luambano (2016: 40), was that for distance learning to be effective, the information seeking behaviour of distance learners needs to be identified to enable information professionals to develop appropriate information services in support of the learners. Luambano's (2016) study reports that, besides University of Tanzania's library the students used Arusha Public Library, a community library that was the most widely used library, mainly because of the presence of a special collection of learning resources to support OUT students that the library possessed. It was observed that there were no computers, let alone Internet connectivity at the Arusha Regional Library and, as a result, students used the public library which provided access to e-resources as well as training on searching the Internet. The study recommended that access to, and use of, information resources by distance learning students needed to be improved through the provision of access to both print and electronic resources. This would assist in minimising the gap between students pursuing their studies in a conventional way and those doing it through distance learning.

2.6.4.5 Malawi

Chawinga and Zozi (2016: 3) point out that ODL is a relatively new concept in tertiary institutions in Malawi, because previously it was only practiced at the secondary school level. It is thus not surprising that Chimpolo (2010: 69) was of the view that many opportunities exist in Malawi for the development of open and distance education. The

main objective of Chawinga and Zozi's (2016) study was to examine the information needs and the obstacles to information sources by ODL students. This was done by addressing three issues, namely, information needs of ODL students, information sources of ODL students and challenges that ODL students faced when seeking information for their courses of study.

2.6.4.6 Botswana

The study of Oladokun and Aina (2009: 45) on the needs of distance education students at the University of Botswana examined five main areas and these were: information needs, information formats preferred, information sources consulted, barriers to the use of information, and computing and information skills. The findings revealed that the students' information needs were suggestively unmet. Printed sources were mostly used and neither location nor level of study had a major effect on students' chosen information source format. It was also revealed that students relied mostly on their lecturers to source information they needed.

2.6.5 South Africa

An investigation conducted by Ramasodi (2009) titled "The information needs of student library users and the fulfilment thereof at University of South Africa", could have provided relevant background to the current study. However, despite the title, the study focused more on the library staff and services offered by the library rather than the information needs of the students, thereby creating a gap in literature. Thus, as was the case with the countries mentioned above, not all the studies reported on focused on distance education students and those linking the public library with distance learners were scarce.

Mostert (2006) investigated the challenges or problems African distance education learners experienced in distance education. Problems that were highlighted in the study included English literacy, academic skills, time management and academic confidence. It also came into light that learners experienced problems in getting access to technology and technological literacy. The loneliness of the distance education learner was also pointed to. Furthermore, Mugwisi, T., Ocholla, D.N., and Mostert, B.J. (2014:

512) found that distance education learners faced challenges in respect of the skills they needed to survive in distance education.

Niemand (2010) investigated the information seeking habits of information and knowledge management students at the University of Johannesburg. Niemand (2010: 5) stressed the importance of students getting information for research and coursework and the most used source of information was the Internet. Although the majority of the participants specified that Internet skills were self-taught, there were those who were of the view that their skills sets were insufficient to fulfil their need for information and that made them feel only partially competent as Internet users.

In 2001 Netswera and Mavundla assessed the research support received by students in a distance learning institution, namely UNISA. They made the point that with distance learning institutions offering research degrees to distance learners, some of the institutions were not well established in terms of research management. The findings pointed to there being limited research skills and limited research infrastructure at the regional centres of the institution. The study found that students lacked research knowledge and skills which had prompted some academic departments to develop research support strategies such as the holding of workshops and the development of research guides, to assist the students.

Killen, Marais and Leodolff (2013) investigated the “Perceptions of South African students and lecturers in the field of business management regarding the successes and failures of distance education.” The research findings revealed that the students enrolling in South African universities had diverse abilities, attributes and backgrounds which gave them a variety of expectations, needs and academic potential. Killen, Marais and Leodolff (2013: 147) mentioned that some students were ill-prepared for the university, whereas others were able to cope with the academic demands made of them.

According to Aitchison (1999: 20) library services for postgraduate distance education students. The findings of this study revealed that some of the problems experienced by UNISA students were that although some students were within commuting distance of the library, others lived too far away from the library and ended up using community

libraries for their needs. Other issues included students who were full-time employed have family commitments and some complained that they did not have the necessary library and information skills. Twenty years later some of these issues that were experienced by these students are still relevant today.

2.7 Summary

Chapter 2 presented the theoretical framework which underpinned the study and the literature review. The review began with the discussion of the concepts used in the study related to distance learning and information needs. Studies relevant to information needs of distance learners were then reported on, on a country-by-country basis.

Chapter 3 which is next, provides the research methodology of the study.

CHAPTER 3 – RESEARCH METHODOLOGY AND METHODS

3.1 Introduction

This chapter presents the research methodology and methods that were used to address the research problem identified in Chapter 1 and answer the key research questions posed. Research methodology is a way to methodically solve research difficulties. Babbie and Mouton (2011: 75) perceive research methodology “as a structure that focuses on the research process and the kind of tools and procedures to be used.” Whereas, Welman, Kruger and Mitchell (2005: 2) state that “a methodology considers and clarifies the reason behind research methods and techniques.” According to Kumar (2008: 5) research methodology may be understood as a discipline of learning how research is done scientifically, while O’Leary (2004: 85) identifies it as “the framework associated with a particular set of paradigmatic assumptions that will be used to conduct the research.” Research methods, on the other hand, are described by Kumar (2008: 6) as “the techniques that will be used to collect data, i.e. interviewing, surveying or participative observation.”

This chapter provides insight into the overall research process by describing all the research methods that were selected for conducting the study and explaining the reasons for selecting those methods. The chapter then concentrates on the research methodological aspects of the study by focusing on some of the most essential features of methodology such as: research paradigm, research approach, research design, research population, sampling, data collection, data analysis, validity and reliability and research ethics.

3.2 Research paradigm

The term “research” has been given various definitions by different scholars in the field of inquiry studies. Welman, Kruger and Mitchell (2005: 2) defined research “as a process that involves obtaining scientific knowledge by means of various objective methods and procedures.” Research is a way of thinking and finding answers to the questions that come to a researcher’s mind. Some of these questions can be answered

easily, whereas others need to be analysed scientifically using a logical manner to answer them. According to Rugg and Petre (2007: 31) research is about finding out something new, which can be new to you or new to someone else. In order to make sense of research information and to transfer it to explainable data, researchers draw implicitly or explicitly upon a set of beliefs or epistemological assumptions called paradigms (Briggs and Coleman, 2007: 18). According to Bassey (1999: 42) paradigms can be described simply as traditions about how research evidence might be understood, patterned, reasoned and compiled. Bertram (2010: 20) states that a research paradigm represents a particular worldview that defines what is acceptable to research whereas Bassey (1999: 42) describes a paradigm as:

A network of coherent ideas about the nature of the world and the function of researchers which, adhered to by a group of researchers, conditions the patterns of their thinking and underpins their research actions.

This research adopted a positivist paradigm approach. Bertram (2010: 20) states that researchers working within a positivist approach believe that the world exists and thus the relationships between things can be easily measured. The research goal is to describe, explain, predict and change behaviour. Positivism has been defined by many individuals over the years, but Krauss (2005: 761) defines positivism as an epistemology "which seeks to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements." The methodology selected depends on what one is trying to do rather than a commitment to a specific paradigm.

A positivist approach is a social theory and according to Briggs and Coleman (2007: 20) "positivism is where it is accepted that facts can be collected about the world; language allows us to represent those facts un-problematically; and it is possible to develop correct methods for understanding processes, relations and institutions." Creswell and Plano Clark (2011: 40) also noted that "the positivism paradigm is more related with quantitative research", whereas, Sale and Brazil (2004: 353) state "that the positivists advise that quantitatively all phenomena can be reduced to empirical indicators which signifies the truth." According to the positivist epistemology, science is seen as the way

to get at truth and to understand the world well enough so that it might be foreseen and measured.

3.3 Research approach

There are numerous methods in dealing with research and two of the most common are known as quantitative and qualitative. Mixed-methods research involves elements of both approaches. The study pursued a quantitative approach to identify the information needs of UNISA students that were using the ARD. This qualifies it as empirical research. The positivists believe in empiricism – the idea that surveillance and dimension are at the core of the scientific attempt. The quantitative research design was, as noted, selected and used for the purpose of this study, which in turn was supported by the positivist or scientific paradigm. Thompson (2002: 40) defined quantitative research as “the research that emphasizes the use of numbers and statistics to analyze and explain social events and human behaviour.” Kumar (2011: 103) stated that “quantitative research has some particular features which are specific, well-structured and have been tested for both their validity and reliability and therefore can be clearly defined and recognized.” Quantitative research usually begins with an investigational design in which a precise hypothesis precedes the quantification of data with follow-up numerical analysis. Qualitative studies, on the other hand, are usually not set up as experiments because qualitative data cannot be simply measured.

3.4 Research design

Research design according to Kumar (2014: 122) “is a roadmap that the researcher decides to follow during their research journey to find answers to their research questions as validly, objectively, accurately and economically as possible.” Kumar (2014) sees research design “as a practical plan that details what and how different methods and procedures are to be applied during the research process.” Kumar (2014: 123) stated that a research design should provide information about the following aspects of the study:

- Who will establish the study population?
- How will the study population be recognized?

- Will a sample or the whole population be selected?
- If a sample is selected, how will it be contacted?
- How will permission be sought?
- What method of data collection will be used and why?
- In the case of a questionnaire, where will the responses be returned?
- How should the participants contact the researcher if they have enquiries?
- How will the ethical issues be taken care of?

This section presents the research design and methods that were used in the study. As a quantitative research design was used for the purpose of the study, Kalof, Dan and Dietz (2008: 34) explain that a quantitative approach generally involves conducting a survey and asking the same kind of questions of every respondent. Ladico, Spaulding and Voegtle (2006: 12) mention that the quantitative approach mostly involves collecting numerical data that can be calculated and analysed. The study investigated the information needs of UNISA students using the ARD in order to improve the information services offered, and ensure the effective use of resources provided to enhance educational needs. The research addressed the key research questions mentioned under the research purpose in Chapter 1.

Research methods may be understood as all those methods and procedures that are used for steering a research project. Research methods or techniques refer to the approaches the researcher used in executing research processes. All the methods which are used by the researcher during the course of studying his or her research problem are termed research methods. The first group of methods used includes the collection of data. These methods are used when data already available are not adequate to arrive at a mandatory result. The second group involves statistical techniques which are used for forming relationships between the data and the unknowns.

As noted, this study qualified as empirical research. An empirical enquiry is defined by Briggs and Coleman (2007: 143) as an enquiry that uses means of collecting data as a

starting point, by usually asking questions, or observing actions or extracting evidence from documents.

3.5 Study population

Population is described by Welman, Kuger and Mitchell (2010: 52) as the study object that consists of individuals, groups, organisations or the conditions to which they are exposed to. Babbie and Mouton (2011: 100) define it as a study of a group (usually of people) about whom the investigator wants to draw conclusions from. A research problem therefore relates to a specific population about which the researcher wishes to make specific conclusions. The target population for the proposed study was UNISA students using the ARD. The population was identified when students submitted their requests forms together with their UNISA student cards as a prerequisite for accessing the ARD and obtaining a seat number. The study attempted to accommodate all the UNISA students using the library during the period 9 - 14 October 2017. The study did not draw a specific sample of the population but focused on the students who were willing to be part of the sample. Generalisation was thus not sought by the researcher and the focus was less on sample size and more on sample adequacy (Bowen, 2008). Bowen (2008) points out that “adequacy of sampling relates to the demonstration that saturation has been reached, which means that depth as well as breadth of information is accomplished.”

3.6 Sampling

The ARD usage statistics for November 2017 shows that 6 358 reference items were accessed for the month, even though the statistics do not specify the name of the institution using the most items and the number of items taken by each person. The researcher distributed 130 questionnaires to students. As Leedy and Ormrod (2010: 2013) point out, for a population of 100 or less there is little point in sampling, rather survey the entire population and for the population size around 500, 50% should be sampled. The sampling method used was non-probability sampling and, more specifically, purposive sampling. Huysamen (1994: 44) is of the opinion that purposive sampling

is the most important kind of non-probability sampling, where researchers rely on their experience, ingenuity and/or previous research findings to deliberately obtain participants in such a manner that the sample obtained may be regarded as representative of the relevant population.

3.7 Data collection

As research is generally relying on empirical information, this means that it is based on the collection of data or the collection of evidence. Data are the facts or information that the researcher gathers in order to find responses to a specific enquiry. Data collected in research is strongly influenced by the research question, research design and the paradigm. Once data had been collected for this investigation, the researcher examined and scrutinised the data, understood and interpreted it and then presented the analysis to the library management.

Data for the study was collected via a questionnaire-based survey. According to Babbie and Mouton (2011: 230), survey research is a very old research method in South Africa as the history of it dates back to the seventeenth century when demographic data was collected in Cape Town. It is very common as a tool of social research in South Africa. Surveys may be used for descriptive, explanatory, and exploratory purposes. They are mostly used in research that has individual people as units of analysis (Babbie and Mouton, 2011: 232). Survey designs are often located within the positivist paradigm, although they have also been increasingly associated with the interpretive paradigm. A quantitative approach involves gathering statistical data to be counted and a data collection method that was used was the questionnaire (see below). Quantitative research makes sense when we know in advance the important variables and when we are able to know how to control and measure them. The type of survey used in the study was a descriptive survey. The idea is to describe the characteristics of the population being studied which, in the case of this study, was the UNISA students using the ARD of the MML. Their behaviour was studied to determine what kind of information they needed and used in order to fulfill their educational information needs.

3.7.1 The questionnaire

Bertram (2010: 56) defines a questionnaire as a list of questions which the respondents answer. Kalof, Dan and Dietz (2008: 118) describe a questionnaire as a set of organised questions which can be easily responded to by participants. Gray (2004: 187) defines questionnaires as “research tools through which people are asked to respond to the same set of questions in a predetermined order.” Questionnaires are widely used as a primary data gathering technique (Gillham, 2007).

Burton and Bartlett (2009: 76) mentioned that designing a questionnaire is a complex task that needs good planning. When designing a questionnaire, questions that should be included are those that relate to the research questions, of which a researcher, according to Welman, Kruger and Mitchell (2005: 174), “should seek out as much previous research on the topic as possible; more especially if the study will have points of comparison with other studies, then data will need to be collected in the same fashion.” Self-administered questionnaires were used as the data gathering instruments which were designed to obtain information on different aspect of library use. The questions were mainly closed-ended questions with a few open-ended questions. The closed-ended questions required respondents to answer yes or no.

Other questions were multiple choice questions and respondents were given a selection of responses to choose from. Some of the questionnaire items were adapted from Ramasodi (2009) and Naidoo (2013) as they were able to describe more clearly what the researcher wanted to find out. In addition, they were still relevant to this study.

Likert scales were used where the attitudes of the students were assessed. The respondents indicated the degree to which they agreed or disagreed with various statements. The questionnaire (see Appendix 3) was made up of six sections, namely:

- Section one: focused on obtaining information on the respondents’ demographic data such as gender, age group, field and level of study, and home language.
- Section two: focused on finding information on the purpose for using the ARD.
- Section three: focused on obtaining information pertaining to information needs of the respondents.

- Section four: concentrated on information sources preferred by the respondents.
- Section five: focused on the library services offered.
- Section six: focused on challenges and barriers faced by students when using the ARD.

There are advantages that account for researchers using questionnaires in their studies. The following advantages were mentioned by Gillham (2007: 6) as the popular ones:

- they are low cost in terms of both time and money,
- it is easy to get information from a lot of individuals very rapidly,
- respondents can complete questionnaires when it suits them,
- analysis of answers to closed questions is straight forward,
- respondents' anonymity is guaranteed, and
- Questions are standardised.

The questionnaire was designed in such a way that respondents were able to complete it in less than 15 minutes. Survey questionnaires were personally distributed to a total of 130 students over a period of six days from 9 October 2017 to 14 October 2017. As a precautionary measure to ensure that none of the respondents completed the questionnaire more than once was that each questionnaire administered to respondents' was attached with an informed consent form (see Appendix 2), where participants could write their names on the form and give consent to participate in the study. When the questionnaire was returned, the consent form was detached from the questionnaire to promote anonymity. The respondents returned the questionnaire to the library staff immediately after they were completed. The majority of students were cooperative and agreed to complete and submit the questionnaire on the same day. Some students decided to take the questionnaires home and return them the following day.

3.7.2 Pre-testing of questionnaire

No matter how carefully the data collection instrument such as a questionnaire is designed, there is always a possibility of error (Babbie and Mouton 2011: 244). Pre-

testing is crucial in eliminating errors, such as spelling mistakes and ambiguous questions which could result in respondents not fully understanding and incorrectly answering certain questions. The pre-testing was done using 10 MML staff members who were furthering their studies and registered as UNISA students. Relevant points were brought to the researcher's attention and were rectified (see below) before administering the questionnaires to the respondents.

3.7.3 Changes made to the questionnaire

After the pre-testing, respondents shared their concerns about the data collection instrument. The following were the changes that were made to the instrument to make it clearer and more understandable:

- Question 1, which asked for the participants' name which was optional, was cancelled.
- Question 4.3, an extra two options were added – Internet and other, please specify (e.g. maps, encyclopedia, and dictionary).
- Question 4.4, the priority level ranking of 1-7 scale had to be clarified by indicating the meaning of the rankings (e.g. 1 - not at all satisfied and 7- highly satisfied).

When the necessary changes were corrected and saved, the questionnaire was printed and copies made ready to be administered.

3.8 Data analysis

After data collection, the next step was data analysis. Data analysis is about the interpretation of data collected for the purpose of drawing conclusions that reflect on the ideas and interest that initiated the investigation. The analysis happens differently with quantitative data and with qualitative data. The analysis reflected both descriptive and explanatory aims, in a way that the researcher would be able to calculate percentages of students who favoured or opposed a certain statement.

Beyond that the researcher described and explained different subsets and correlation between different subsets. Data was analysed and presented statistically in the form of

graphs, tables and text. Bell (1999) states that the SPSS program is useful for generating descriptive and frequency tables which are a form of data presentation that was mostly used in the current study. SPSS software, according to Babbie and Mouton (2011: 260), allows researchers to describe or summarise the main features of the data or the relationships between variables in the data set. SPSS was the software package used to analyse data collected in the study.

Before using SPSS, the raw data was prepared, given numerical codes, checked for errors and, where necessary, corrected. The coding of responses to the closed questions was simple and straightforward. With the few open-ended questions available on the questionnaire, content analysis was used. According to Babbie and Mouton (2011: 491) content analysis is very much like a quantitative analysis in a way that it examines words or phrases within a wide range of text. By investigating the existence and recurrence of certain words, a researcher is able to make insinuations about the philosophical assumptions of a writer. Content analysis involves a lot of reading as the researcher has to make sense of patterns and themes that emerge from respondents' data.

3.9 Validity and reliability

It is essential to assess research methods in order to determine whether they successfully measured what they intended to measure or not. Evaluation of a research method requires the researcher to assess the validity and reliability of the research method used. Babbie and Mouton (2011: 122) state that "validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration". Welman, Kruger and Mitchell (2005: 142) consider validity as the extent to which the research findings accurately present what is really happening in the situation. The validity of data of this study depended on the building of questions and how accurately participants understood and responded to those items. As outlined above a rigorous pre-test of the questionnaire was conducted, which helped ensure the validity of the instrument.

Reliability is the extent to which the test measure can be repeated and still produce the same results. Bertram (2010: 46) explains “that for research to be reliable it must demonstrate that if it were carried out on a similar group of respondents in a similar context, then similar results will be produced”. Babbie and Mouton (2011: 120) stated that reliability is a matter of whether a certain method, applied continually to the same object, would yield the same outcomes each time. However, they go on to say that reliability does not guarantee accurateness any more than precision does. As noted above, the study adapted some questionnaire items from Naidoo (2013) and Ramasodi (2009) that had been tested and previously used to investigate information behaviour and information needs of distance learners. The adapted questions can be assumed to be reliable when they have been used by other researchers in their studies.

3.10 Ethical issues

Ethical considerations are essential in social research, as the research deals with human beings with values and attitudes which a researcher would not like to invade. Ethics reveal our beliefs about what is just and right behaviour against what we judge to be unfair and wrong. There are general ethical rules that are commonly followed by researchers when their investigations involve humans. Ethical guidelines were discussed by Silverman (2013: 161-163) and he proposed five key codes or standards of research ethics. All were considered in the study. They were:

- ***Voluntary participation and the right to withdraw*** – Since social research often requires people to reveal personal information about themselves to strangers, it is therefore made clear that no one is forced to participate and that they are at liberty to withdraw from the project any time.
- ***Protection of research participants*** – Participants need to be assured of the confidentiality of the information supplied, and how the information will be made public.

- ***Assessment of potential benefits and risks to participants*** – The research should be of benefit directly to the participants or broadly to other researchers or the community at large.
- ***Obtaining informed consent before starting fieldwork*** – Consent of the participants is vital. Participants must all receive a clear explanation of what the research expect of them.
- ***Harm to research participants must be avoided*** – Research should not injure the people being studied, this includes the revealing of information that would embarrass them or endanger their lives somehow.

In addition, the study followed the University of KwaZulu-Natal ethical research policies which are in line with Silverman's standards above.

3.11 Summary

This chapter clarified the research methodology of the study. The research paradigm, research approach, and research design applied in this quantitative study were identified and explained. The methods were described and discussed in detail. The population of the study, sampling technique, data collection instrument, and data analysis methods were systematically discussed in the chapter. Pre-testing of the questionnaire, as the data collection instrument was described. This was followed by a discussion of the validity and reliability of the instrument and the analysis, using SPSS, of the data collected. The chapter ended with a consideration of the ethical guidelines that the study adhered to.

Chapter 4, which follows, presents the research findings.

CHAPTER 4 – RESEARCH RESULTS

4.1 Introduction

This chapter presents the findings of the survey, conducted using a self-administered questionnaire as the data collection tool. The purpose of the study was to investigate the information needs of the UNISA students using the Adult Reference Department (ARD) in order to improve the services offered by the library and ensure the information needs of the students were met and fulfilled. Questionnaires were distributed to 130 participants over a period of one week (9 October 2017 to 14 October 2017). Even though this was during an exam period, participants were willing to answer the questionnaires. After signing the consent form, signifying their willingness to contribute in the study, the participants completed the questionnaires. They freely responded to the questions with the assurance that their responses were anonymous. This was achieved by separating the signed consent form from the questionnaire and placing it in a separate box from the one containing the completed questionnaires. In this way no signed consent form could be associated with a specific completed questionnaire. Data from the questionnaires were statistically analysed and the SPSS programme was used for data analysis. The findings are presented according to the six sections of the questionnaire which were based on the research questions underpinning the study. These sections are:

- **Section 1:** Demographic data
- **Section 2:** Purpose for use
- **Section 3:** Information needs
- **Section 4:** Information sources
- **Section 5:** Library services
- **Section 6:** Challenges/barriers experienced by users

To begin with, some brief notes concerning the presentation of data and the response rate are made. The questionnaire consisted of 21 questions in total, of which 18 were closed questions and three were open-ended, the latter requiring more detail and clarification from the respondents.

4.2 Presenting data

Data is obtained and presented in various forms depending on the type of data collected. Frequency tables will be used to show how often each value of the variable in question occurs in that data set. Frequencies will also be presented as relative frequencies which are the percentage of the total number in the sample. Frequency distributions are illustrated through the use of tables and graphically by bar graphs and pie charts. Percentages will be used and if the total percentage does not equal 100% that is due to the rounding off of figures to one decimal point.

4.3 Response rate

According to Babbie and Mouton (2011: 261) the response rate may be called the completion rate or the return rate. Hernon, Altman and Dugan (2015: 110) described the response rate as the percentage of people who return completed and usable surveys. According to Saunders, Lewis and Thornhill (2009: 219), a 100% response rate in social science research is highly unlikely or impossible, which was the case with this current research. Babbie and Mouton (2001: 261) mentioned that a response rate of 60% is good and a response rate of 70% is very good. As outlined, 130 questionnaires were administered to participants and 116 usable questionnaires were returned giving a response rate of 89%. In terms of Babbie and Mouton (2001) this could be considered more than “very good”.

4.4. Section 1: Demographic information

The demographic section of the questionnaire concentrated on the basic demographic data of the respondents, namely, the respondents' age group, gender, level of education, field of study, home language and details regarding whether respondents were part or full-time students. Although not central to the study, the personal data helped to contextualise the findings and assisted in formulating the appropriate recommendations for the study.

4.4.1 Age and gender

Table 1 below shows that of the 116 respondents 27 (23.2%) were males and 89 (76.7%) were female. Females thus comprised a fairly substantial majority of the respondents and of those 67 (57.7%) were in the age category of 20 – 30 years.

Table 1: Respondents' age and gender

N=116

	Gender					
Age categories	Female		Male		Total	
	Frequency	%	Frequency	%	Frequency	%
Under 20	2	1.7	2	1.7	4	3.4
20-30	67	57.7	17	14.6	84	72.4
31-40	18	15.5	5	4.3	23	19.8
41-50	2	1.7	3	2.5	5	4.3
Total	89	76.7	27	23.2	116	99.9*

*Total percentage does not equal 100% due to the rounding off of figures to one decimal point

4.4.2 Level of education

Respondents were asked what level of education they were registered for. Options were provided from which they had to select which was applicable to them. Options included being an undergraduate or postgraduate student. Knowing whether students were undergraduate or postgraduate would, for example, have implications in terms of their information needs and the library services needed to satisfy those needs. The results, by gender, are reflected in Table 2 below and show that a small majority of respondents 66 (56.8%) were undergraduates, followed by 27 (23.2%) who were postgraduate students. Interestingly four (3.3%) respondents were studying for non-degree purposes.

Table 2: Level of education**N=116**

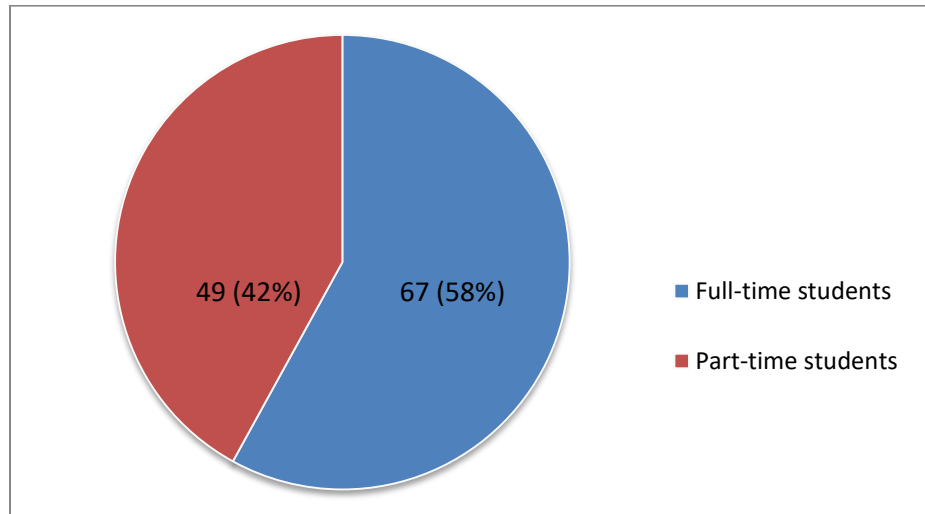
	Gender				
Level of Education	Male		Female		Total
	Frequency	%	Frequency	%	
Non-degree purposes	1	0.8	3	2.5	3.3%
Certificates	2	1.7	5	4.3	6%
Diploma	3	2.5	9	7.7	10.2%
Undergraduate	14	12	52	44.8	56.8%
Postgraduate	7	6	20	17.2	23.2%
Total	27	(23.2)	89	(76.7)	99.9%

*Total percentage does not equal 100% due to the rounding off of figures to one decimal point

4.4.3 Registration status

In an ODL setting it is essential to know if students are studying on a full-time or part time basis. Figure 3 below indicates 67 (58%) respondents were full-time students and the remaining 49 (42%) were registered on a part-time basis. Of the 67 full-time respondents 52 of were undergraduates between the ages of 20 - 40. Of the 49 part-time respondents 20 were postgraduates, between the ages of 20 - 30.

Figure 3: Students' Registration status
N=116



4.4.4 Field of study

Respondents in question 1.4 were asked to indicate their field of study as the researcher wanted to determine what the popular fields were. Out of 116 (100%) respondents, 108 (93%) responded to the question with eight (7%) not doing so. As evident in Table 3 below the most popular field of study, of a wide variety of fields mentioned, was education with just over half 59 (51%) respondents indicating this. A huge gap thus exists between it and the next most popular field of study, namely, law with 10 (8.6%) respondents.

Table 3: Field of study
N=116

Field of study	Frequency	%
Education	59	50.8
Law	10	8.6
Social Work	5	4.3
Accounting	5	4.3
Management	4	3.4
Public Management	4	3.4
Security Management	3	2.5
Agriculture, Civil Eng., Supply Chain, Nursing	2	1.7
Civil Engineering	2	1.7
Supply Chain	2	1.7
Nursing	2	1.7
Archives and Records Management	1	0.8
Public Relations	1	0.8
Information Technology	1	0.8
Psychology	1	0.8
Communication Science	1	0.8
Economic Management	1	0.8
Environmental Science	1	0.8
Psychology Counselling	1	0.8
Gender Studies	1	0.8
Language Practice	1	0.8
No response	8	6.8
Total	116	100

4.4.5 Home language

As evident in Table 4 below the home language of the vast majority of 108 (93.1%) of respondents was IsiZulu. What the findings with regard to language do indicate is that all respondents, with the exception of one, were probably pursuing their studies in a language (English) other than their mother tongue.

Table 4: Home language

N=116

Home Language	Frequency	%
IsiZulu	108	93.1
Xhosa	6	5.1
English	1	0.8
Sotho	1	0.8
Total	116	99.8*

*The total percentage does not equal 100% due to the rounding off of figures to one decimal point

4.5 Section 2: Purpose for use

Section two of the questionnaire determined why the participants were using the ARD (Question 2.1) and from whom they sought help regarding the academic information needed (Question 2.2). In terms of the first question a range of reasons were provided from which participants had to select all that were applicable. An “other” option was also provided but not used. Table 5 below shows that the majority of respondents 88 (75.8%) used the library to obtain study material or to use the study area – with 76 (65.5%) respondents.

Table 5: Purpose for use
N=116

Purpose for use	Frequency	Percentage
To obtain study material	88	75.8
To use study area	76	65.5
To do research	45	38.7
To use internet café	30	25.8
Group discussion	16	13.7

4.5.1 Seeking help

As noted, Question 2.2 ascertained from whom the respondents sought assistance with regard to their academic information needs. Two options were provided and, if applicable, respondents could select both. Table 6 indicates that 83 (71.5%) respondents said they consulted the reference staff when needing help regarding their academic information needs, and 43 (37%) respondents preferred asking their fellow students/friends. In the other category, one responded (0.9%). Multiple responses were received.

Table 6: Seeking help
N=116

How students seek for help	Frequency	%
Consult reference staff	83	71.5
Ask fellow students/friends	43	37
Non-response	5	4.3
Other (colleagues, work, etc.)	1	0.9

4.6 Section 3: Information needs

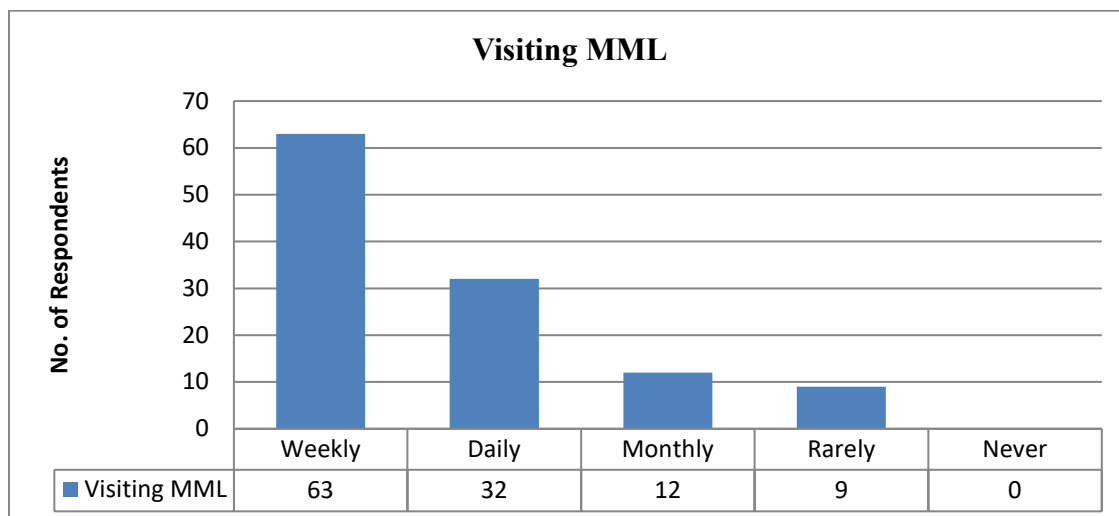
This part of the questionnaire investigated the information required by students to fulfil their educational objectives. There were four questions in this section and the results are given below.

4.6.1 Visiting MML

Respondents were asked to indicate how often they visited Msunduzi Municipal Library (MML) and could choose one of the following options: daily, weekly, monthly, rarely or never. A small majority 63 (54.3%) of respondents said they visited the library weekly and this was followed by a surprising 32 (27.6%) respondents who indicated daily visits to the library (see Figure 4 below). Thus, a substantial 81.9% of respondents visited the library either daily or weekly.

Figure 4: Visiting MML

N=116



4.6.2 Necessary information

The respondents were asked to indicate to what extent the library had the necessary information to assist them with their information needs. As can be seen in Table 7 below, 69 (59%) respondents mentioned that they always find the necessary

information, 32 (28%) selected often, 14 (12%) chose sometimes, one (0.9%) chose seldom, and none of the participants selected never. It is evident that the library's resources are meeting the needs of the respondents to a large extent but there is room for improvement.

Table 7: Available necessary information
N=116

Necessary library information	Frequency	%
Always	69	59
Often	32	28
Sometimes	14	12
Seldom	1	0.9
Never	0	0
Total	116	99.9*

*The total percentage does not equal 100% due to the rounding off of figures to one decimal point

4.6.3 Degree of satisfaction

Respondents were asked to indicate their degree of satisfaction with information obtained from the Adult Reference Department (ARD). Table 8 below reveals that a substantial majority 106 (91.3%) of respondents were either very satisfied or satisfied with the information obtained. Five (4.3%) were unsure, none of the respondents were unsatisfied and one (0.8%) did not answer the question.

Table 8: Degree of satisfaction**N=116**

Satisfaction	Frequency	%
Very satisfied	52	44.8
Satisfied	54	46.5
Unsure	5	4.3
Moderately satisfied	4	3.4
Unsatisfied	0	0
No answer	1	0.9
Total	116	99.9*

*The total percentage does not equal 100% due to the rounding off of figures to one decimal point

4.6.4 Personal characteristics

Question 3.4 required participants to indicate their personal characteristics relating to the library and information use. This question was a multiple response one with four options to choose from. The question was asked to eliminate doubts the researcher had regarding why some of the students may not obtain the kind of information they were looking for in the library. Table 9 below reveals how the participants responded. None of the possible characteristics scored high with only one being above 50%, namely, respondents who considered that they have the necessary language skills. Of concern is that only a third of respondents 39 (33.6%) had computer and information searching skills which are vital for finding relevant information needed for their studies. Also of concern is that only 11 (9.5%) of the respondents received training in the use of the library and its resources.

Table 9: Personal characteristics

N=116

Individual's personal characteristics	Frequency	%
Have language ability to express myself clearly	67	57.7
Have experience in using the library	57	49.1
Have computer and information searching skills	39	33.6
Received training in the use of the library and its resources	11	9.5
Non-response	2	1.7

Multiple responses were received

4.7 Section 4: Information sources

In this section participants were required to answer five questions that dealt with various aspects relating to sources of information used at the ARD.

4.7.1 The use of ARD library resources

The participants were asked how often they use the ARD resources and services and Table 10 below reveals the results. The highest number of respondents 65 (56%) used the library resources and services on a weekly basis as compared to 22 (18.9%) who did so on a daily basis. Fifteen (12.9%) respondents used the resources monthly, which does not differ much with 14 (12%) respondents that rarely used the services.

Table 10: The use of ARD resources and services

N=116

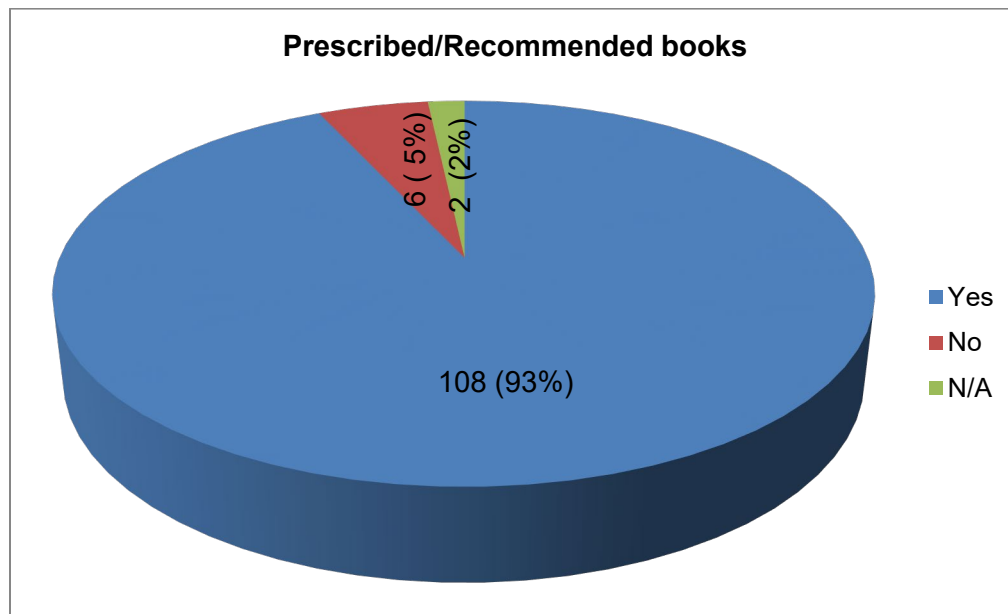
Usage of resources and services	Frequency	Percentage
Daily	22	18.9
Weekly	65	56
Monthly	15	12.9
Rarely	14	12
Never	0	0
Total	116	99.8*

*The total percentage does not equal 100% due to the rounding off of figures to one decimal point

4.7.2 Prescribed or recommended material

Question 4.2 determined whether participants found the prescribed or recommended books they needed. The vast majority 108 (93%) of respondents answered in the affirmative. A mere two (2%) respondents said the question was inapplicable to them. The pie chart (Figure 5) below illustrates the responses given.

Figure 5: Prescribed or recommended material
N=116



4.7.3 Information sources consulted

The third question under section four asked participants to indicate which sources they consulted in the library when looking for information and how often they did so. As indicated in Table 11 below, textbooks were the most consulted and the most often consulted resource with 95 (81.8%) respondents selecting always as a response. This was followed by 67 (57.7%) respondents who always consulted “Other”, which included maps, dictionaries, and encyclopedias. Apart from the 45 (38.7%) respondents who always consulted the Internet, none of the remaining information sources were always consulted by more than nine percent of respondents.

Table 11: Information sources consulted**N=116**

Information Sources	Frequency					Non-response	Rank
	Always	Often	Sometimes	Rarely	Never		
Textbooks	95	13	4	-	1	3	1
Other: e.g. maps, dictionary, encyclopedia	67	3	6	7	14	19	2
Internet	45	22	23	6	7	13	3
Newspapers	10	10	17	29	19	31	4
Journals (Online/Print)	7	12	28	19	20	30	5
Govt. Publications	6	5	16	21	31	37	6

4.7.4 Level of satisfaction using Internet café

Question 4.4 asked participants to indicate the level of satisfaction they had when using the Internet café. Two options needed to be responded to. The first concerned the amount of time taken to find information on the Internet and the second whether respondents' searches were successful. A scale of 1 to 7 was used, where 1 was "not at all satisfied" and 7 was "highly satisfied". Table 12 presents how participants responded. The vast majority of respondents expressed some degree of satisfaction with both the amount of time taken to find information on the Internet and with the success in doing so – 80% and 80.7% respectively. Of interest was approximately 13% of respondents who did not respond suggesting that they did not use the Internet café.

Table 12: Finding information at the Internet café**N=116**

Levels of satisfaction	Amount of time taken to find information		Successfully finding information	
	Frequency	%	Frequency	%
1 - not at all satisfied	8	6.8	6	5.1
2 - partly satisfied	6	5.1	6	5.1
3 - moderately satisfied	13	11.2	4	3.4
4 - satisfied	21	18.1	9	7.7
5 - more than satisfied	17	14.6	19	16.3
6 - very satisfied	21	18.1	26	22.4
7 - extremely satisfied	15	12.9	30	25.8
Non-response	15	12.9	16	13.7
Total	116	99.7*	116	99.5*

*The total percentage does not equal 100% due to the rounding off of figures to one decimal point

4.7.5 Contributing factors to finding information

There are certain factors contributing to the sources of information students consult and use to find information. Question 4.5 required participants to rank how influential the contributing factors to finding information were in terms of ease of use, reliability, accessibility, relevancy and prior experience. As can be seen in Table 13 below the only factor that was seen as “Not at all influential” was accessibility and so rated by a very small percentage of respondents, that is 1.7%.

Table 13: Contributing factors to resources used
N=116

Contributing Factors	Responses											
	Extremely Influential		Very influential		Somewhat influential		Slightly influential		Not at all influential		Non-response	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Ease of use	30	25.8	64	55.1	13	11.2	4	3.4	-	0	5	4.3
Reliability	27	23.2	64	55.1	14	12	5	4.3	-	0	6	5.1
Accessibility	36	31	54	46.5	14	12	2	1.7	2	1.7	8	6.8
Relevancy	26	22.4	62	53.4	15	12.9	5	4.3	-	0	8	6.8
Prior experience	27	23.2	58	50	20	17.2	4	3.4	-	0	7	6

4.8 Section 5: Library services

Section 5 of the questionnaire had three questions that focused on the services provided by the library. Respondents were asked whether they were aware of the services provided, whether they needed any other reference services and, lastly, how satisfied they were with the services and resources provided by the ARD. These questions were asked so that the researcher could determine awareness of, identify gaps in, and levels of satisfaction with the services and resources provided.

4.8.1 Services offered by the library

Question 5.1 listed four services provided by ARD. Respondents had to indicate whether they were aware of them or not. Two services had relatively low levels of awareness, namely, ILL and literature searches with 67.2% and 43.1% of respondents indicating a lack of awareness respectively. The vast majority of respondents were aware of the provision of all South African published material and Internet services. (See Table 14 below.)

Table 14: Services offered by ARD
N=116

Responses	Other services offered			
	Provision of all South African published material	ILL	Literature searches	Internet services
	%	%	%	%
Yes	85.3	30.1	54.3	88.7
No	12	67.2	43.1	8.6
Non-response	2.5	2.5	2.5	2.5
Total	99.8	99.8	99.9	99.8

*The total percentage does not equal 100% due to the rounding off of figures to one decimal point

4.8.2 Other services

Respondents were asked in question 5.2 whether they need any other reference services that were not provided by the library. Table 15 below indicates that 84 (72.4%) respondents expressed a need for further services.

Table 15: Other services
N=116

Responses	Need for other services not provided	
	Frequency	%
Yes	84	72.4
No	29	25
Non-response	3	2.5
Total	116	99.9

*The total percentage does not equal 100% due to the rounding off of figures to one decimal point

Those respondents who expressed a need were asked to specify which services were needed. The following responses are what most of the participants repeatedly mentioned:

- “Latest editions of accounting textbooks”
- “Ramp for disabled people to use from ground floor to the first floor, because the elevator is out of order sometimes”
- “UNISA examination papers to be made available”
- “To provide international journals”
- “Overnight loan”
- “More fiction on African languages”
- “More journal titles”
- “Discussion study area”.

4.8.3 Satisfaction with ARD resources and services

Question 5.3 asked the participants to rate their overall satisfaction with ARD resources and services, using a scale shown in Table 16 below. While the majority of respondents (77.5%) were either somewhat, mostly, or completely satisfied with the resources and services provided by the ARD, there were 11 (9.4%) respondents who were mostly

dissatisfied and eight (6.8%) who were completely dissatisfied. These latter figures are cause for concern.

Table 16: Satisfaction Ratings of ARD resources and services

N=116

Satisfactory ratings	Frequency	%
Completely dissatisfied	8	6.8
Mostly dissatisfied	11	9.4
Somewhat dissatisfied	1	0.8
Neither satisfied nor dissatisfied	2	1.7
Somewhat satisfied	28	24.1
Mostly satisfied	34	29.3
Completely satisfied	28	24.1
Non-response	4	3.4
Total	116	99.6

*The total percentage does not equal 100% due to the rounding off of figures to one decimal point

4.9 Section 6: Challenges or barriers experienced when using ARD

Section six concentrated on the challenges or barriers experienced by the participants when searching for information at the ARD. Participants were requested to rank the barriers from high to low. While non-response was relatively high (See Table 17 below) those who ranked the barriers listed as high were few in number – in each instance less than 10%. On the other hand, those who listed the barriers as low numbered between 50 and 60% in each instance.

Table 17: Challenges or barriers experienced when using the ARD**N=116**

Barriers/Challenges	High	Medium	Low	Non-response	Total
	%	%	%	%	%
Lack of access	4.3	20.6	59.4	15.5	100
Lack of time	7.7	18.9	57.7	15.5	100
Inadequate resources	5.1	24.1	52.5	18.1	100
Lack of skills in using library resources	6.8	18.1	56.8	18.1	100
Lack of knowledge of info sources	7.7	19.8	52.5	19.8	100
Language	7.7	19.8	58.6	13.7	100

The last question of the questionnaire gave the participants a chance to add any additional comments, concerns or suggestions they may have had. The following are the suggestions made and will be further discussed in Chapter 5:

- “Upgrades on the Internet as it is slow and take time to load pages”.
- “To add more computers at the Internet café as some are not working”.
- “Library to open up until 16:00pm on Saturdays to accommodate those at work during the week”.
- “To limit time on popular books so everyone will get an equal chance”.
- “Fix air conditioners”.
- “To open the library early on weekdays, i.e. 8:00am”.
- “Time management for all computers at the Internet café, i.e. 2hours per patron”.
- “Discussion area”.
- “Staff to keep their voices down because they tend to be noisy”.
- “A strong Wi-Fi to connect to”.
- “Open on Sundays to promote inclusivity”.

4.10 Summary

This chapter focused on the presentation of the findings emanating from the questionnaires administered to the participants. The main findings were presented in the form of tables and figures with textual summaries. The order of presentation was that of the questions in the questionnaire.

The next chapter, Chapter 5, interprets and discusses the main research findings.

CHAPTER 5 – INTERPRETATION AND DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter reflects on the results of the study presented in Chapter 4. Significant matters arising from the data collected via self-administered questionnaires will be scrutinised and discussed. The results are considered in the light of the research problem, purpose and key questions outlined in Chapter 1 and in light of the literature reviewed in Chapter 2. The purpose of the study was to determine the information needs of UNISA students using the ARD of the MML and whether the department (and the MML) was meeting those needs. To realise this purpose seven key research questions were asked and these were as follows:

- **Research question 1:** For what purposes do Pietermaritzburg UNISA students use ARD? The question was addressed by survey questions 2.1 and 2.2.
- **Research question 2:** What are the UNISA students' patterns of use of the ARD? This research question is addressed by survey questions 4.4, and 5.1.
- **Research question 3:** What are the information needs of the UNISA students using the ARD? This research question is addressed by survey questions 3.1, 3.2, 3.3 and 3.4.
- **Research question 4:** What are the UNISA students' information source preferences? This question was addressed by survey question 4.1, 4.2, 4.3, 4.4 and 4.5.
- **Research question 5:** What library services offered by MML/ARD are UNISA students aware of? This question was addressed by survey question 5.1, 5.2, and 5.3.
- **Research question 6:** What challenges do UNISA students face when using the library? This question was addressed by survey questions 3.3 and 6.3.

- **Research question 7:** How satisfied are UNISA students with the services available to them? This question was addressed by survey questions 3.3 and 5.3.

In order to answer the above questions, the study adopted both Wilsons' 1996 model of information behaviour and the extension of Wilson's model for the information behaviour of distance learners (Tury, Robinson and Bawden, 2015) – the latter because it deals specifically with distance learners as mentioned in Chapter 2. The questions were consistent with the models used and the information needs of the users making direct contact with the ARD.

The questionnaire included personal information, questions regarding information needs, library services used and challenges/barriers UNISA students experienced in acquiring information for their studies. The interpretation and discussion of the results follow the sequence of the sections in the questionnaire. To provide context, the demographic profiles of the respondents are discussed first.

5.2 Demographic profile of the respondents

The extension of Wilson's model (Tury, Robinson and Bawden, 2015) places the information user as a central point amongst all the variables. Therefore, it is essential to describe the participants that were involved in the study. Demographic information identifies a person and shows the different characteristics of distance learners. These characteristics are consistent with respondents in related research such as that of Boadi and Letsolo (2004: 21). The characteristics included age, gender, level of education, field of study, home language and the students' registration status. The demographic profile of the respondents suggests that the data collected and presented emerged from a "balanced" sample that included all ages, different levels of education and fields of study.

5.2.1 Age and gender of respondents

The age and gender of the participants varied but the majority of participants were female and fell into the 20 - 30 years' category. It is in this age category that students are generally finding their way in life, starting their own careers and upgrading

themselves educationally. These findings differ from those of Ramasodi's (2009) in that the majority of respondents in her study were female belonging to the age group between 40 - 49 years. Ramasodi's study was done nine years ago when middle-aged women in that age category were enrolling in higher education learning institutions to obtain particular qualifications. Moreover, the UNISA annual report (2013) shows that females accounted for 63% of registered students from 2009 to 2013. The preponderance of females was reflected, as mentioned above, in the sample of this study.

Nine years later, it does appear that more younger women are studying and UNISA offers them an option of doing so through distance learning while being employed. The age of the majority of participants disputes the notion that older people are the ones mainly interested in studying through distance learning. These results are in line with Nwezeh's (2010) and Luambano's (2016) research which showed that the majority of participants were young and female. From the findings it is evident that age and gender were not factors that could hinder or make a difference in students fulfilling their information needs.

5.2.2 Level of education

In order to provide the users with relevant and useful information, it is important to know the students' level of education and their field of study. Knowing the level of education will assist in ensuring that relevant information needed by students to complete assignments and research, is provided at the right level. The research results make it clear that undergraduates constituted the majority of participants. Tury, Robinson and Bawden's (2015) investigation also revealed that over half of the participants in the study were undertaking undergraduate degree courses. It can be concluded, as both Tury, Robinson and Bawden (2015) and Nwezeh (2010) have done, that because the majority of students are studying towards their first degree, they might not really know all the services offered by the library especially if there was no orientation conducted. It must be noted that while undergraduate participants were the majority in this study other levels of education were represented as well, including postgraduate. In this

regard the study differs from that of Tury, Robinson and Bawden (2015) and that of Nwezeh (2010).

5.2.3 Field of study

The field of study was included in the demographic section because the researcher needed to ascertain the popular courses that the respondents were registered for at UNISA. This would enable the ARD to provide information necessary and needed by the students to fulfil their information needs. The most prevalent course of study was the Bachelor of Education. Being a teacher is a growing profession in South Africa. The South African Constitution together with the Bill of Rights stipulates that every child in the country has a right to education. The African National Congress (ANC) government has promised South African citizens in the 2030 National Development Plan (NDP) that more schools will be built to accommodate all children in the country. With more schools being built in the future, qualified educators will need to be employed in all vacant positions and this accounts for the popularity of the teaching degree. The law degree was the second most popular field of study the participants were registered for. Knowing the popular fields of study will provide library management with a basis for decision making in terms of acquisition of material. Selection of material will thus take the needs of the students into account thereby making for a more relevant service provided by the ARD.

5.2.4 Registration status

The results reveal that the majority of respondents were registered on a full-time basis with less than half (but still a substantial minority of 42%) registered part-time. This latter figure shows that as much as students want to study full-time many of them also have families that they need to provide for. As a solution, students seek employment first so that they can be breadwinners for their families while they are studying part-time through UNISA. With the registration status findings, it is evident that MML works hard to ensure that its mission statement is implemented to ensure that the information needs of Pietermaritzburg community and surrounding areas are catered for.

5.2.5 Home language

The research was based in Pietermaritzburg, KZN and the researcher wanted to establish the dominant language spoken by the participants. Over 90% of participants were identified as IsiZulu speaking. Even though there were other participants who conversed in languages such as English, Xhosa and Sotho, IsiZulu was dominant and this is not surprising given that KZN's original population is 90% IsiZulu-speaking. As the vast majority of participants were IsiZulu speaking, they had an advantage of communicating in both English and IsiZulu. This makes it easier for the ARD and the library staff as a whole to communicate and assist students with their information needs without communication breakdown or communication barriers. However, as was pointed out in the previous chapter, it can be assumed that most of the participants were studying in a language other than their home language. Importantly, bibliographic tools in the library such as the catalogues and bibliographies are predominantly in English, which would be a second language for participants. This could well impact on their ability to retrieve and find relevant information.

5.3 Purpose for using ARD

Participants had different reasons for using the ARD and every reason was relevant to their information needs which would, ultimately, advance them to the next level of their educational objectives. The theoretical framework underpinning the study, which was an extension of Wilson's model for the information behaviour of distance learners, identifies the activating mechanisms for students using the library as being completing course work and preparing for exams, dissertation and research. The results show that the participants' main aim was to do their best with assignments, research and tests in order to gain knowledge and advance to the next level. Thus almost 90% of participants stated that the main purpose for using the ARD was to obtain study material which would, understandably, enable them to perform better and pass their examinations. These findings were similar to those of Luambano (2016) who found that of the 88.3% of respondents using public libraries in Tanzania, 41.7% came to the library to use the Learning Resource Centre which stocked study material and several textbooks for students. Nwezeh's (2010) research results were not in agreement with the above findings because only a total of 24.3% of students in that study were frequently coming

to the library to use the reference material. This was mainly because the students were relying mostly on lecture notes and the assistance of friends. The majority of students in Nwezeh's (2010) study were visiting the library mainly to use the study area to do research.

The use of the Internet as an information resource seems to be growing rapidly especially among students. This is because most students have smart phones and information, via the Internet, is always at the tip of their fingers. Access to the Internet was another reason for the participants to use the MML. The Internet café is available to students and they are, for example, able to check their emails, communicate with their lecturers and access MyUnisa to search for particular information. However, in contrast, Naidoo and Mbatha (2010) in their study found that almost 90% of students were using the library mainly for the availability of the Internet.

While the results revealed that the most consulted material for the study participants using the ARD were textbooks, journals were also consulted but not to the same extent. Nwezeh (2010) in his research showed that participants who frequently visited the library used journals. Journals fall under two categories, namely, print and online. At the MML, print journals are available at the periodicals department whereas the online journals have to be requested from the ARD staff who have to retrieve them on various databases that the library subscribe to. These are then sent to the students via email. The other option that students selected as a response was that they came to the library for group discussions with their friends. Nwezeh (2010) also had students that came to the library mainly to discuss their assignments with friends or classmates. Even though the library does not have a discussion area, during morning opening hours' students who needed a discussion space are sent to use the children's section to do so. This section is empty and quiet in the mornings as most of the children are at school.

The extension of Wilson's model for information behaviour of distance learners, as the theoretical framework makes it clear that participants' purpose for library use includes students needing information to complete their coursework, prepare for exams, and do research for their dissertation. The purposes of using the ARD mentioned above were the ones expected by the researcher and these findings are generally in line with those

of other investigations done by other researchers. The study was unique in that it focused on a public library which is having to perform academic library functions in trying to assist the UNISA students with their information needs. Other investigations focused mainly on academic libraries that were not blending their services with those of a public library which, unlike the academic library, caters for all community members at large.

5.3.1 Seeking help

Seeking for information at a library is one particular function of being an information seeker. Information seeking supports the student in finding the relevant information needed and, in the process, realising their educational goals. Identifying other means of finding information would assist the researcher to understand why some students were not coming to the library. The question came directly from the theoretical framework variables where distance learners' information seeking behaviour is explained by focusing on the social networks of participants. The students' social networks are those people they communicate with regarding their information queries and include tutors/lecturers, librarians, other fellow students, and friends and family.

To some extent the results reveal that part-time students, because of the nature of their situation (that is, probably being employed), do not have the time to visit the library as often as they would like and thus end up contacting friends and classmates for information. However, a majority of the participants preferred consulting with the ARD (reference) staff when in need of information. What is evident is that when assistance with an information need is required, people (whether friends, fellow students or library staff) are an important resource in providing that assistance.

5.4 Information needs of UNISA students using ARD

Information is a major element in a student's life, especially since once it is acquired it gives them power and the means to achieve their goals. Information is seen as an integral part of any strategy in the information age. Boadi and Letsolo's (2004) findings on information needed by distance learners to carry out their learning activities revealed

that they needed information that was relevant to their educational programmes, while a smaller number of participants wanted information that was easily accessible. Larson (2016) found that less than half of the respondents in her study indicated that they wanted information relevant to their programme of study, while others preferred information that was easily accessible and readily available in the library. That came as a surprise especially since the participants in the current study were aware that the ARD is not an academic library but a public library that caters for all the information needs of the community. As much as the library is assisting students, it is not its main mission to fulfil all their information needs. This is the responsibility of UNISA and students need to raise the issue with the UNISA library.

Participants were asked how satisfied they were with the information they obtained from the ARD. The vast majority of respondents indicated that they were either very satisfied or satisfied. The overall satisfaction with the information obtained is a positive finding for the ARD and indicates that the library is largely meeting the academic needs of the UNISA students despite, as mentioned above, this not being its only priority. There will always, of course, be room for improvement.

The personal characteristics of each participant are vital when seeking information, because they can have a bearing on students' ability to find and retrieve information. Apart from "the language ability to express themselves clearly" which was chosen by just over half of the respondents, no other characteristic received a response of more than 50%. A third of respondents possessed computer and information searching skills which would make it easier to search and retrieve information themselves at the Internet café.

What emerged strongly from the results was the need for library training as only 9.5% of respondents indicated having had such training. A minority of participants (13.7%) also used the ARD for group discussions and the results revealed that students need a discussion area to use when they are engaging in group work as the other areas of the library do not allow them to have discussions.

5.5 Information source preferences

Current technology offers a variety of new information distribution systems, and information available anytime from anywhere. It is crucial, however, to highlight that easy access to sources of information does not mean that all retrieved information is relevant, reliable and of satisfactory quality. Therefore, the range of information sources available necessitates the need to identify and select the most suitable source. Findings indicate that the most consulted information source was textbooks with 82% of respondents indicating that they always do so. As in this study, Luambano's (2016: 46) research revealed that almost all of the study participants first consulted prescribed textbooks when using the library.

The use of textbooks (whether prescribed or recommended) is not always ideal for students as some are unpublished and compiled by lecturers. As these categories of textbooks are not stocked by the ARD the students find it very difficult to access them as they are only available online and at the UNISA library. Students then end up having to find other secondary information which reduces their chances of getting good marks for their work.

The Internet was consulted either always or often by 57.8% of the respondents. This was expected as the Internet seems to be taking the world by storm in all areas of our lives. With other investigations conducted by different scholars in developed countries it is evident that academic institutions in those countries do not have the connectivity problems as compared to state institutions in developing countries. It will take a long time for this problem to be resolved considering the bureaucracy and red tape, among other barriers, in local government institutions. The extent of free use of the Internet has implications for the provision of information and raises important issues of information literacy support and development for students. Less consulted, either always or often, were journals (16.4%) and newspapers (17.2%). The latter were consulted because some of the students were applying for jobs which were advertised in newspapers. Government publication were, perhaps understandably, consulted always or often by less than 10% of the respondents.

Bremner (2001: 3), conducting research on the information needs of distance learners, also found that textbooks were the item most frequently used followed by newspaper articles, encyclopedias, the Internet and journal articles. Less than five percent of participants could not find prescribed items. Nwezeh's (2010) findings showed that reference materials were the most used sources in the library followed by journals and those who came for discussions with friends and classmates. The research also revealed that participants used tutorial letters and lecture notes as primary sources of information. For more information, they turned to prescribed and recommended

textbooks and then, lastly, consulted journal articles. Larson (2016) also found that a significant majority of students depend on course material and lecture notes to address their information needs. Adesoyes' (2010) results revealed that many study participants preferred printed resources only, others used only electronic resources, while there were those who consulted both printed and electronic resources. Chawinga (2016) noted that most of the participants in his study used lecture notes, the Internet and textbooks. Thus, the finding of the present study, that textbooks are the most consulted information source, are generally confirmed by other research.

The findings indicate that the vast majority of participants (91.2%) were either very satisfied or satisfied with the information obtained from the ARD. This does go some way in indicating that the materials provided by the library are meeting students' needs. This, however, should not lead to complacency on the part of the library management and, as the discussion above does indicate, there is room for improvement with regard to the provision of information. It also needs to be borne in mind that students appear to rely mainly on readily accessible information in the form of textbooks. As has been pointed to above, the researcher was aware of an underlying expectation on the part of some participants that it was the responsibility of MML and the ARD in particular to provide textbooks and course materials relevant to their studies. The responsibility of the institution they were studying through, namely UNISA, was not pointed to in this regard.

Note: What emerged late in 2018 was a Memorandum of understanding (MOU) signed on 4 October 2018 between MML and UNISA. In terms of this, the library staff learned

that the library is not responsible for buying UNISA prescribed books. As far as the UNISA is concerned all of their students that cannot afford fees are on the National Student Financial Aid Scheme (NSFAS) and are encouraged to buy their own study material with that money. This information has changed the way library management perceives things and it remains to be seen how service to UNISA students develops in the future.

5.5.1 Reasons for choice of information resources

Participants were given different options to choose from in terms of how influential certain criteria were when selecting information sources to use. The most important source selection criterion was “ease of use”. This was either extremely influential or very influential to a majority (80.9%) of the participants. Reliability and accessibility were close seconds selected by 78.3% and 77.5% of participants respectively. Given this, the popularity of textbooks is perhaps not surprising, as this type of information source is noted for both its reliability and, in the case of ARD, its accessibility. The criteria of relevancy (another characteristic of textbooks) and prior experience were also highly rated as influential in participant’s choice of information sources.

Majyambere (2012: 86) in his study found that students preferred electronic resources for three main reasons and these were: accessibility, ease of use, and cost effectiveness. Tury, Robinson and Bawden (2015: 317) shared similar findings to the present study stating that the resource selection criteria were ease of access, ease of use, and ready availability. What emerges from the findings and literature is that all criteria can be considered important to the students when determining choice of information source. Interestingly, textbooks are the one format which, arguably, meets all the criteria.

5.6 Library services

The services offered by the library are vital to the patrons and they are the reason why patrons use the library in the first place. It was gratifying to find that over 85% of participants knew about the legal deposit status of the library. Having such status means that the library houses all items published in South Africa irrespective of their format, which could be books, journals, newspapers, government publications or maps.

With the knowledge of this status patrons use MML with confidence because they know that the chances of them not finding information sources published in this country are very low.

A higher percentage (88.7%) of respondents stated that they were aware of the Internet services provided by the library with only ten respondents not being aware. There was less awareness of the fact the literature searches could be performed by the librarians for the students, and of the existence of the ILL service. Less than one third (30.1%) of participants knew of the latter. To what extent undergraduate UNISA students actually need to make use of the ILL service is debatable and it could be argued that the service would be of more relevance to postgraduate students engaged in research.

Nonetheless, this service needs to be marketed and exposed more to the students because it could be useful to them in the long run. When participants were asked if they needed any new services that were not available at the library to be introduced, 72.4% replied in the affirmative. Various services were suggested by the respondents and these ranged from the “Latest editions of accounting textbooks” and “More journal titles” to “UNISA examination papers to be made available” and “Discussion study area”.

In terms of participants’ satisfaction with the resources and services provided by the ARD a large majority (77.5%) expressed some degree of satisfaction. Only 17% expressed some degree of dissatisfaction. While this finding can be seen as a positive one it is evident that there is room for improvement in both the resources and services provided by the ARD.

5.7 Challenges/barriers experienced by patrons

During the process of satisfying a need, an individual will invariably encounter various difficulties. Those difficulties usually create a barrier between a student and him or her meeting their objective. A list of possible barriers was provided to respondents and they were requested to rank these as, high, medium or low. As mentioned in the previous chapter the number of respondents who ranked the barriers as high were few in number – in each instance less than 10%. On the other hand, those who listed the barriers as low numbered between 50% and 60% in each instance. This suggests that while there

clearly are barriers or challenges, they were generally not seen as particularly problematic by the majority of respondents.

In terms of the challenge of inadequate resources, this was anticipated by the researcher as the library, being part of the local government unit, has to abide by the rules and regulations of the municipality. The local municipality's process of budget allocation for the actual buying of library items goes through different managers for approval and by the time those items are released it is often too late for the patrons.

Jowkars' (2009) research revealed that students did not find information relevant to their needs, and that the library did not have enough equipment to help with their needs. The research also found that students did not know how to search for information and this could have been a reason why they did not find relevant information. As a solution to the challenge of material not being timeously available, students could be encouraged to request the items they require early through the ILL service. This underscores the necessity, mentioned above, of promoting the ILL service.

The findings also revealed that while MML is a legal deposit library it has a very limited number of journals from countries other than South Africa. In response library management is planning to subscribe to more databases that will give staff access to journals worldwide, which will be very helpful to the students.

Lack of technological skills was a barrier mentioned by Oladokun (2009) and was a result of no computing and information skills being received from their university. Nine years later the present study shows that students are still struggling with a lack of such skills. In response to the last question in the questionnaire, respondents indicated that they were sometimes disappointed when informed that they cannot borrow items from the library as they are, in effect, reference materials which have to remain in the library. This led the researcher to believe that the respondents did not understand what reference means, because if they did, they would understand the situation. Some participants suggested an overnight loan service as a solution to the challenge above. According to the ARD rules overnight loans are not allowed as the library tries by all means to make its items available to all patrons to use equally.

The lack of knowledge of information sources and the language were equal fourth on the list of challenges that the participants experienced. It was also revealed that some respondents were unable to express themselves confidently enough for the person behind the counter to give them exactly what they were looking for, and they thus ended up not having their needs met.

Lack of time and lack of skills in using library resources were also on the list of barriers. The issue with time is mainly the opening and closing times of the library which affects ODL students the most. Those students who are fully employed cannot find time to visit the library during the week as the opening and closing times are not suitable for them. In similar vein, Boadi and Letsolo (2004) found that participants in their study complained a lot about opening hours.

As mentioned earlier in section 5.5, in terms of the MOU signed between MML and UNISA the two institutions became partners in serving and fulfilling students' information needs. This MOU could provide a solution to many of the challenges faced by UNISA students. Even though the MOU does not benefit MML in any way, it will alleviate some of the barriers the UNISA students are experiencing including, for example, inadequate resources and the lack of skills in using the resources available – two issues which UNISA and its library could take more responsibility for. The MOU also specifies that MML will be another place of deposit for students to submit library items and assignments due.

5.8 Summary

Chapter 5 consisted of the interpretation and discussion of the research findings of the study that were presented in Chapter 4. The interpretation and discussion of results was done according to the sequence of the key questions presented in Chapter 1 and repeated at the beginning of this chapter. The discussion took into consideration the literature review and the theoretical framework underpinning the study that was presented in Chapter 2.

Chapter 6, the final chapter follows. It presents a summary of the research results, draws conclusions and makes recommendations.

CHAPTER 6 – CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The MML is at the hub of Pietermaritzburg where it is accessible on a daily basis to all the community members and the public in general that need assistance with their information needs. Since UNISA students are part of the community, they use MML and, more specifically, the ARD for educational purposes. The ARD welcomes them openly as it caters for tertiary students and other community members embarking on research. Ramasodi (2009: 100) mentioned that it was difficult to market library services in an ODL institution because the majority of students do not personally visit the ODL library but rather use public libraries which are closer to them for their information needs. This is the situation at MML as the library seems to be dealing increasingly with tertiary students studying via ODL.

In this chapter the conclusions and recommendations of the study are presented in light of the research problem presented in Chapter 1 and the research results presented in Chapter 4 which were interpreted and discussed in Chapter 5. The conclusions and recommendations are presented to ensure completeness of the investigation. According to Babbie and Mouton (2006: 101), the reason data is collected is for the purpose of drawing conclusions that reflect the interests, ideas and theories that initiated the research inquiry in the first place. It is anticipated that the data collected and analysed in this investigation will prompt library management to take cognisance of the conclusions that emerged and, ideally, implement them. Subsequent to this introduction, an overview of the study is provided. This is followed by the conclusions arrived at. Recommendations are then provided and the chapter ends with suggestions for further research.

6.2 Overview of the study

As stated in Chapter 1, the purpose of the study was to determine the information needs of UNISA students using the ARD of the MML and whether the department (and the MML) was meeting those needs. It was anticipated that by doing so, changes could, if necessary, be implemented thus better accomplishing the library's mission statement vis a vis the UNISA students. In order to achieve the purpose, seven research questions were put forward and these have been outlined both in Chapters 1 and 5 and provide the framework for the conclusions presented in 6.3 below. A brief summary of the thesis on a chapter-by-chapter basis is now given.

Chapter 1: Outlined the background to the research, stated the research problem, the purpose of the research as well as the research questions underpinning the study. Also included in the chapter was the scope of the study and definitions of key terms used. The chapter ended with an overview, by chapter, of the remainder of the study.

Chapter 2: Provided a review of the research literature that was related to distance learning and information needs of students in ODL. Also provided was the theoretical framework on which the study was based. The extension of information needs theory was used as a model to underpin the study.

Chapter 3: Discussed and examined the research methodology used in the investigation. Aspects outlined and discussed included the research paradigm and approach, the study population and sample, the research instrument and data collection, data analysis as well as the validity and reliability of the questionnaire. Ethical considerations were also raised.

Chapter 4: Presented the results of the survey conducted via self-administered questionnaires to a sample of 116 UNISA students using the ARD. Findings were presented in tables, pie charts and bar graphs and consisted, in the main, of frequency counts.

Chapter 5: Focused on the interpretation and discussion of the significant results of the study as presented in Chapter 4. This was done in light of the relevant literature and the

theoretical framework as discussed in Chapter 2 and the key research questions posed in Chapter 1.

6.3 Conclusions

The outcome of the investigation provides some useful insight into the information needs and preferred information sources of the sample of 116 UNISA students. The study resulted in several significant findings. The extensive use of prescribed and recommended textbooks received a consistent mention as the main purpose for using the ARD and MML as a whole. Despite the power of the Internet, the participants reported that they relied more on prescribed textbooks provided by the ARD, and for more information participants used, amongst other sources, their tutorial letters to satisfy their information needs especially since some of the participants were employed full-time and thus had limited time to visit the library.

The questionnaire included questions regarding library services, information needs, the purpose of using the library, information sources, user satisfaction and the barriers or challenges the participants were facing in acquiring information for their studies. The conclusions below are presented and discussed according to the research questions as described in Chapters 1 and 4.

6.3.1 Purposes of UNISA students in using ARD

The results of the study established that the motivation behind UNISA students using the ARD was to work on their assignments, prepare for tests, complete coursework, prepare for exams and work on their dissertations and research projects as mentioned in Chapter 5, section 5.3. The participants were prompted to search for information and use the ARD when an information need arose and they needed to satisfy that need. The participants' main reason for seeking information in the first place was educational to enable them to pass their tests and exams in order to upgrade themselves and move on to their next achievement in life. As much as the main purpose for using the ARD was to obtain study material, followed by use of it as a study area, the use of the ARD and the library for the Internet access amongst students is very likely to grow in the future, as it

(the Internet) - was the third most frequently used information source by participants after textbooks and reference materials.

6.3.2 Participants' patterns of use of the ARD

Emerging strongly from the findings was the important role that MML was playing with regard to supporting the academic needs of the UNISA students. This was reflected in the frequency of use of the library with a substantial majority (81.9%) of respondents using the library on a daily or weekly basis. Until the UNISA library in Pietermaritzburg becomes operational this pattern of use is likely to remain. The Internet café will, however, remain an attraction given the number of computers available and the more liberal opening hours.

6.3.3 Information needs of the participants

It was evident that participants, like people in general, had specific information needs that related to a problem that needed to be solved. The students' information needs were triggered by the fields of study they were registered for and their need to write assignments and prepare for exams. The study concludes that participants needed information and used the ARD to do their academic work. The library as a service provider is required to supply a quality service which can satisfy its users, including UNISA students enrolled in distance education. The researcher has a few recommendations below covering information needs and these recommendations need to be seen in the context of new developments, in particular the aforementioned MOU signed between UNISA and the MML. It is very important for both the MML and UNISA management to communicate more so as to ensure the improvement of services provided to the students by both the MML and UNISA.

6.3.4 Information sources preferred by participants

The study established that the majority of participants were consulting prescribed and recommended textbooks as their main source preference. One can thus conclude that the preferred source of information for the participants was the textbook. The participants preferred using textbooks mostly because they were easily accessible and

the main primary source of information. A further finding, as revealed in information source preference section 5.5 was that participants were sometimes referred by their lecturers to unpublished works or self-compiled works. These compilations are difficult for the library to obtain and thus equally difficult, if not impossible, for the participants to access.

6.3.5 The knowledge of library services offered by MML and ARD

The study concluded that not all participants were aware of the services offered by the ARD. The ILL service, in particular, was the service that most participants did not know about. This is likely to have resulted in some respondents not meeting their information needs as they did not know there was an extra service that could cater for their needs. Not knowing about ILL meant the students were not assisted. This could impact negatively on the library staff in terms of students' perceptions, and it is always advisable to tell patrons about the ILL service when their requested item is not available. Once a patron is told about the service it is up to them to decide whether they want to use it or not, because depending on the distance between the two libraries involved, an item might take from three days to a week or two to be delivered to the library.

A further conclusion that can be made in the light of the findings is that participants were not aware that staff in the ARD are able to perform literature searches for them. It was only the students who were regulars who knew about this service. Others had to rely, in the main, on printed textbooks as their main source of information.

6.3.6 Participants' satisfaction with services available

Respondents were asked two questions concerning satisfaction. The first focused on satisfaction with information obtained from the ARD and the second satisfaction with the ARD resources and services more generally. In terms of the first, respondents were overwhelmingly positive concerning the information obtained. The second was less clear cut – while a majority of respondents expressed some degree of satisfaction, there were 20 who expressed some degree of dissatisfaction. It can thus be concluded that while the ARD is on the “right track” and library management can take encouragement from

this, it is evident that there is room for improvement in terms of services rendered to UNISA students by the ARD.

6.3.7 Challenges and barriers experienced by participants

The challenges encountered by participants when seeking information at the ARD for their studies varied. As noted in the findings no challenge or barrier listed was rated highly as problematic and in fact the majority of respondents (albeit small majorities) rated the various challenges as low. Another barrier encountered were the inadequate resources. It also emerged that a fairly large proportion (approximately one third) of the participants considered that they lacked computer and information retrieval skills which would constitute a significant barrier when searching for information. The study also established that participants were not clear about the main purpose of a reference department and its duties, as some pointed out that they expected the ARD to provide a short loan service. Challenges relating to the Internet café were also mentioned and these included computers not working, computers being slow, and the time available to use the computers being insufficient.

6.4 Recommendations

After a thorough look at the findings of this research and given the conclusions noted above, the following recommendations are made:

- **MML and ARD need to market their services more to the public so that they are aware what services the library offers.**

The library used to have an “Open Day” once every year where library patrons, schools and higher education institutions were invited, talks were given and everyone present was taken for a tour on each and every department of the library. It made the public much more aware of the services rendered by the library. In the light of the findings of this study, implementing this once more needs to be considered.

- **Library management is advised to initiate library orientation for UNISA and other students.**

This could be done at the beginning of each university semester and should incorporate a library resources training programme for the users to gain knowledge and a better understanding of all resources and services offered by the library. More specifically, it is important that tertiary students using the ARD be educated about the department, its resources and services offered.

- **Library users should be provided with an OPAC system.**

This will assist users in getting to know the library collection by having access to the library catalogue and be able to search for references themselves. It is imperative to improve the services available to patrons from time-to-time in order to provide good service.

- **Library management needs to look at the budget allocated to the ARD.**

If the ARD has a sufficient budget it would be able to purchase more and more relevant reference materials.

- **Computers in the Internet café need to be repaired.**

The Internet café has more than 20 computers that are currently not working. These need to be fixed and made available for use by the community. Computer maintenance needs to be done timeously and a reporting system for computers not working needs to be put in place.

- **Upgrade the Internet speed.**

The Internet is very slow making it difficult for participants to search and find information timeously. This results in users not finishing on time and impacts on the time available for the next person to use the computer.

➤ **Time management system on all Internet café computers.**

Some computers have a time limit of one hour per user installed on the system and others do not which makes it difficult for some users to have a fair chance of using computers.

➤ **Extended opening hours on Saturdays to accommodate ODL students.**

The library closes at 13:00pm on Saturdays and the results showed that participants wanted more time to use the library services. It was proposed to at least close the library at 16:00pm and this is a proposal that the researcher would support.

➤ **Open study area on Sundays.**

The study area is used by anyone who is using their own material and the results revealed that participants need the study area to be opened on Sundays with the security guard to look after them.

➤ **Time limit on popular textbooks, for everyone to get a fair chance of use.**

Fair use of textbooks seems to be a challenge to students especially during the exam period. There are limited copies available at the ARD and given that there is no time limit on use one person can use an item for the entire day simply because he or she borrowed it first. The findings show that in order for students to fulfil their information needs, there has to be a time limit for each user so that all the students can get a fair chance of using the item.

➤ **A strong wi-fi connection.**

The library has a wi-fi connection available but it is very weak and it is only accessible in the mornings when there are few people using the service.

➤ **Discussion area.**

The library does not have a discussion area and the findings revealed that it is needed.

6.5 Suggestions for further research

During this study, there were certain areas that were identified which could provide opportunities for further research, and they are as follows:

- The information needs of the MML users more generally need to be ascertained. This investigation focused on an important user group of the library, namely UNISA students, but there are other ARD and MML users such as school learners and members of the public in general that further studies could consider investigating with the aim of improving services offered.
- MML staff and their role in providing effective, efficient and relevant information services to the library users. The research was solely based on information from the perspectives of the UNISA students. For students and staff to work harmoniously and to ensure that an efficient, effective and relevant service is provided by the MML it is vital that research on MML staff and their role in assisting patrons is done.

6.6 Summary

This was the final chapter of the study. It provided an overview of the study in terms of the information needs of UNISA students using the ARD of the MML in Pietermaritzburg. Conclusions were made in terms of the key research questions underpinning the study. Recommendations based on the findings were given and, if taken seriously, could benefit both MML and UNISA and, importantly, the UNISA students themselves. The chapter concluded with some suggestions for further research.

LIST OF WORKS CITED

Adesoye, A. E. and O. I. Amusa (2010). Investigating the information needs of sandwich and part-time students of two public universities in Ogun State, Nigeria. *Inkanyiso: Journal of Humanities and Social Sciences* **2**(2): 98-107.

Aitchison, J. (1999). Library services for postgraduate distance education students: some issues examined in the literature. *Innovation* **42**(18): 20-28.

Alewine, M. C. (2012). Listen to what they have to say! Assessing distance learners' satisfaction with library services using a transactional survey. *Journal of Library & Information Services in Distance Learning* **6**(3-4): 136-146.

Babbie, E. and J. Mouton (2011). *The practice of social research*. Cape Town: University Press.

Barsun, R. (2002). It's my library, too, isn't it? *Journal of Library Administration* **37**(1-2): 59-82.

Bassey, M. (1999). *Case study in educational settings*. Buckingham: Open University Press.

Behr, M. and J. LaDell-Thomas (2014). What do they have that we don't have? Local libraries and distance students: why do students stray and can we get them back? *Journal of Library & Information Services in Distance Learning* **8**(3-4): 137-167.

Bertram, C. (2010). *Understanding research*. 3rd. ed. Pietermaritzburg: Faculty of Education, University of KwaZulu-Natal.

Bhatt, R. (2010). The impact of public library use on reading, television, and academic outcomes. *Journal of Urban Economics* **68**: 148-166.

Bishop, A. P., T. J. Tidline, S. Shoemaker and P. Salela (1999). Public libraries and networked information services in low-income communities. *Library and Information Science Research* **21**(3): 361-390.

- Boadi, B. Y. and P. Letsolo (2004). Information needs and information seeking behaviour of distance learners at the Institute of Extra-Mural Studies in Lesotho. *Information Development* **20**(3): 189 -199.
- Bremner, A. (2001). Meeting the information needs of distance learners - the Open University response. *Vine* **31**(1): 54-58.
- Briggs, A. R. J. and M. Coleman (2007). *Research methods in educational leadership and management*. London: Sage Publications.
- Brooke, C., P. McKinney and A. Donoghue (2013). Provision of distance learner support services at UK universities: identification of best practice and institutional case study. *Library Trends* **61**(3): 613-635.
- Bryman, A. (2012). *Social research methods*. New York: Oxford University Press.
- Buckland, M. K. (2008). Reference library service in the digital environment. *Library & Information Science Research* **30**: 81-85.
- Burton, D. and S. Bartlett (2009). *Key issues for education researchers*. Los Angeles: Sage Publications.
- Capurro, R. (1992). What is information science for? A philosophical reflection. In P. Vakkari and B. Cronin (Eds.), *Conceptions of library and information science: Historical, empirical and theoretical perspectives* (pp82-93). London: Taylor Graham.
- Case, D. O. (2002). *Looking for information: a survey of research on information seeking, needs, and behaviour*. San Diego, California: Academic Press.
- Case, D. O. (2012). *Looking for information: a survey of research on information seeking, needs, and behaviour*. 3rd ed. Bingley, UK: Emerald Group Publishing Limited.
- Chawinga, D. W. and P. Zozi (2016). Information needs and barriers to the information sources by open and distance learners: a case study of Mzuzu University, Malawi. *South African Journal of Information Management* **8**(1): 1-12.

- Christiansen, Ó. (2010). The literature review in classic grounded theory studies: A methodological note. *The Grounded Theory Review* **10**(3): 21-25.
- Cooner, B., B. F. Williams and H. Steiner (2011). Fostering library as a place for distance students: best practices from two universities. *Internet Reference Services Quarterly* **16**(4): 149-158.
- Creswell, J. E. and V. L. Plano Clark (2011). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications.
- DeMaagd, K., H. Chew, G. Huang and M. L. Khan (2013). The use of public computing facilities by library patrons: demography, motivations, and barriers. *Government Information Quarterly* **30**: 110-118.
- Dervin, B. (1983). Information as a user construct: the relevance of perceived information needs to synthesis and interpretation. In Ward, S. A. and L. J. Reed, eds. *Knowledge structure and use: implications for synthesis and interpretation*, Philadelphia, P.A.: Temple University Press, pp. 153-184.
- Ellis, D. (1989). A behavioural approach to information retrieval design. *Journal of Documentation* **45** (3): 171-212.
- Ellis, D. (1993). Modelling the information seeking patterns of academic researchers: a grounded theory approach. *Library Quarterly* **63**(4): 469-486.
- Fisher, K. E., S. Erdelez and L. McKechnie (2009). *Theories of information behavior*. Medford, NJ: Info Today Inc.
- Ganaie, S. A. and M. Khazer (2014). Changing trends in information seeking behavior: a review. *Journal of Knowledge and Communication Management* **4**(1): 13-26.
- Gillham, B. (2007). *Developing a questionnaire*. London: Continuum International Publishing Group.
- Godbold, N. (2006). Beyond information seeking towards a general model of information behaviour. *Information Research* **11**(4): 1-14.

Grover, R. J., R. C. Greer and J. Agada (2010). *Assessing information needs: managing transformative library services*. Santa Barbara: Libraries Unlimited.

Haider, S. J. (2004). Coping with change: issues facing university libraries in Pakistan. *The Journal of Academic Librarianship* **30**(3): 229-236.

Hawkins, G.W. and J.D. Baker. (2005). Online learner expectations. *Encyclopedia of distance learning*. Hershey, PA: Idea Group Reference.

Hernon, P., E. Altman and R. E. Dugan (2015). *Assessing service quality: satisfying the expectations of library customers*. London, Facet Publishing.

Herring, S. D. (2010). Research on libraries and distance education: an analysis of articles published 1999 - 2009. *Journal of Library & Information Services in Distance Learning* **4**(3): 137-146.

Holloway, K. (2011). Outreach to distance students: a case study of a new distance librarian. *Journal of Library & Information Services in Distance Learning* **5**(1-2): 25-33

Hufford, J. R. (2004). Library support for distance learners. *Journal of Library and Information Services in Distance Learning* **1**(3): 3-28.

Huysamen, G. K. (1994). *Methodology for the social and behavioural sciences*. Johannesburg: International Thomson (Southern Africa).

Ikoja-Odongo, R. and J. Mostert. (2006). Information seeking behaviour: a conceptual framework. *South African Journal of Libraries and Information Science* **72**(3): 145-158.

Jowkar, A. (2009). Distance education and the role of library services in Iran: a case study of Shiraz University Distance Learners. *Library Hi Tech News* **26**(7): 11-14.

Kalof, L., A. Dan and T. Dietz (2008). *Essentials of social research*. Berkshire: Open University Press.

Kaniki, A. M. (1995). Exploratory study of information needs in the Kwa-Ngwanase (Natal) and Qumbu (Transkei). *South African Journal of Library and Information Science* **63**(1): 9-18.

Kaniki, A. M. (2001). Community profiling and needs assessment. *In: Stilwell, C., Leach, A. and Burton, S. (Eds.) Knowledge information and development: an African perspective*. South Africa: Pietermaritzburg, Scottsville, University of Natal: School of Human and Social Studies.

Kavulya, J. M. (2004). Challenges in the provision of library services for distance education: a case study for selected Universities in Kenya. *African Journal of Library, Archives and Information Science* **14**(1): 15-28.

Killen, R., A. de K. Marais, and P. van Z. Leodolff. (2003). Success and failure in distance education: perceptions of South African students and lecturers in Business Management. *South African Journal of Higher Education* **17**(2): 147-158.

Kuhlthau, C.C. (1991). Inside the search process: information seeking from the user's perspective. *Journal of the American Society for Information Science* **42**(5): 361-371.

Kumar, R. (2011). *Research methodology: a step-by-step guide for beginners*. Los Angeles: Sage Publications.

Kumar, R. (2014). *Research methodology: A step-by-step guide for beginners*. 4th ed. Sage Publications Limited.

Ladico, M.G., D. Spaulding and K. Voegtle. (2006). *Methods in educational research: from theory to practice*. San Fransisco: Wiley Imprint.

Larson, A. G. (2016). Information needs of distance learners: a case of Winneba Study Center, University of Education, Winneba, Ghanna. *Turkish Online Journal of Distance Education* **17**(3): 62-75.

Lebowitz, G. (1997). Library services to distant students: an equity issue. *Journal of Academic Librarianship* **23**: 303-308.

Leedy, P. D. and J. E. Ormrod (2005). *Practical research: planning and design*. 8th ed. Upper Saddle River, N.J.: Pearson Education.

Leedy, P. D. and J. E. Ormrod (2010). *Practical research: planning and design*. 9th ed. Upper Saddle River, N.J.: Pearson Education.

Lester, J. and C. K. Wallace (2007). *Fundamentals of information studies: understanding information and its environment*. New York, University of Virginia: Neal-Schuman Publishers.

Lodico, M. G., D. T. Spaulding and K. H. Voegtler (2006). *Methods in educational research: from theory to practice*. San Francisco: Jossey-Bass.

Losee, R. M. (1997). A discipline independent definition of information. *Journal of the American Society for Information Science* **48**(3): 254.

Luambano, I. (2016) Information seeking behaviour of distance learning students: a case study of the Open University of Tanzania, Arusha Region. Tanzania. University of Dar es Salaam.

Majyambere, M. (2012). *Information needs and information seeking behaviour of international students at the University of KwaZulu-Natal, Pietermaritzburg campus*. MIS. Thesis. Pietermaritzburg: UKZN.

Mbatha, B. and L. Naidoo (2010). Bridging the traditional gap in Open Distance Learning (ODL): the case of the University of South Africa. *Inkanyiso: Journal of Humanities and Social Sciences* **2**(1): 64-69.

Mostert, B. J. and D. N. Ocholla (2005). Information needs and information seeking behavior of parliamentarians in South Africa. *South African Journal of Libraries and Information Science* **71**(2): 136-150.

Mostert, B. J. (2006). Parliamentary library services in South Africa. *South African Journal of Libraries and Information Science* **73**(2): 156-167.

Mugwisi, T., Ocholla, D. N., & Mostert, B. J. (2014). An overview of the information needs of agricultural researchers and Extension workers in Zimbabwe. *Libri* **64**(1): 85-108.

Naidoo, K. (2013). The information behaviour of managers in the Msunduzi Municipality's business units. MIS. Thesis. Pietermaritzburg: UKZN.

Naidoo, K. (2015). Personal communication to G. Vidima. Pietermaritzburg. 15 September.

Netswera, F.G. and T.R. Mavundla (2001). The assessment of research support in a distance learning education. *South African Journal of Higher Education* **15**(3): 155-161.

Ngcobo, Z. (2017). *Personal communication to. G. Vidima*. Pietermaritzburg. 23 August.

Nickel, L. J. and R. G. Mulvihill (2010). Serving unaffiliated distance learners: strategies that work. *Journal of Library & Information Services in Distance Learning* **4**(5): 87-95.

Niemand, C. J. P. (2010). Information seeking habits of information and knowledge management students: a University of Johannesburg case study. *South African Journal of Information Management* **12**(1): 1-6.

Nwezeh, C. M. T. (2010). Libraries and distance education in Nigerian universities: a revisit. *New Review of Academic Librarianship* **16**: 102-115.

Oladokun, O. S. and L. O. Aina (2009). Library and information needs and barriers to the use of information sources by continuing education students at the University of Botswana. *Information Development* **25**(1): 43-50.

O'leary, Z. (2004). *The essential guide to doing research*. London: Sage Publications.

Park, S. J. (2012). Measuring public library accessibility: a case study using GIS. *Library & Information Science Research* **34**: 13-21.

Phoenix, J. (2007). *Msunduzi Municipal Library: information for new staff handout*. Pietermaritzburg: Msunduzi Municipality.

Ramasodi, B. (2009). *The information needs of student library users and the fulfilment thereof at University of South Africa*. MIS. Thesis. Pretoria: UNISA.

Rowland, F. and I. Rubbert (2001). An evaluation of the information needs and practices of part-time and distance learning students in the context of educational and social change through lifelong learning. *Journal of Documentation* **57**(6): 741-762.

Rugg, G., and M. Petre. (2007). *A gentle guide to research methods*. Maidenhead, New York: Open University Press.

Sale, J. E. and K. Brazil (2004). A strategy to identify critical appraisal criteria for primary mixed-methods studies. *Quality and Quantity* **38**: 351-365.

Saunders, M., Lewis, P. and A. Thornhill (2009). *Research methods for business students*. Harlow, England: Financial Times Prentice Hall.

Shenton, A. K. (2007). *Causes of information-seeking failure: Some insights from an English research project*. Youth Information-Seeking Behavior II: Contexts, Theories, Models and Issues.

Shenton, A. K. (2010). Etic, Emic, or Both? A fundamental decision for researchers of young people's information needs. *New Review of Academic Librarianship* **16**(1): 54-67.

Shih, C., M. Chen, H. Chu and Y. Chen (2012). Enhancement of information seeking using an information needs radar model. *Information Processing and Management* **48**: 524-536.

Silverman, D. (2013). *Doing qualitative research*. Los Angeles: Sage Publishers.

Slade, A. L. (2004). Research on library services for distance learning. *Journal of Library and Information Services in Distance Learning* **1**(1): 5-43.

South Africa. Legal Deposit Act 54 of 1997.

<http://www.nlsa.ac.za/downloads/LEGAL%20DEPOSIT%20ACT.pdf> Accessed 8 May 2018.

South Africa. (2012). Department of Higher Education and Training. *Draft Policy Framework for the Provision of distance education in South African Universities*.

Stilwell, C. (1989). Community libraries: a brief review of their origins and nature with particular reference to South Africa: the emergence of the Community Information Centre. *Journal of Librarianship* **21**(4): 260-269.

Tipton, C. J. (2001). Graduate students' perceptions of library support services for distance learners. *Journal of Library Administration* **31**(1-2): 393-408.

Tripathi, M. and V. K. J. Jeevan (2009). Quality assurance in distance learning libraries. *Quality Assurance in Education* **17**(1): 45-60.

Tury, S., L. Robinson and D. Bawden (2015). The information seeking behaviour of distance learners: a case study of the University of London International Programmes. *Journal of Academic Librarianship* **41**: 312-321.

UKZN Research Ethics Policy. (2007). UKZN Research Office.

http://www.research.ukzn.ac.za/files/Research_Ethics_Policy_V_Final_rec_from_ACB_31_July_2007. Accessed 31 October 2018.

UNISA, (2016). *UNISA Online Prospectus*. Pretoria. South Africa.

Welman, C., F. Kruger and B. Mitchell (2005). *Research methodology*. South Africa, Oxford University Press.

Wilson, T.D. (2000). Human information behaviour. *Informing Science* **3**(2): 49-55.

Wilson, T.D. (1999). Models in information behaviour research. *Journal of Documentation* **55**(3): 249-270.

Wilson, T. D., & Streatfield, D. R. (1979). Information needs in local authority social services departments: an interim report on Project INISS. *Journal of Documentation* **33**(4): 277-293.

APPENDICES

Appendix 1: Permission to conduct research in Msunduzi Municipal Library

**THE MSUNDUZI MUNICIPALITY
REGIONAL COMMUNITY SERVICES
MSUNDUZI MUNICIPAL LIBRARY SERVICES
THE BESSIE HEAD LIBRARY**

TELEPHONE : 033-392 2626
FACSIMILE : 033-3940095
EMAIL : Mandla.Ntombela@msunduzi.gov.za

P O Box 415
PIETERMARITZBURG
3200



July 10, 2015

Mrs G. Vidima
Msunduzi Municipal Library
Adult Reference Section

Dear Mrs Vidima

RE: INFORMATION STUDIES, MASTERS DEGREE: GATEKEEPERS PERMISSION TO CONDUCT RESEARCH

Your e-mail sent on 8th July 2015 has reference.

Please be advised that you are hereby granted permission to conduct your research within the Msunduzi Municipal Library.

I trust that the above is in order.

Yours Sincerely

M. Ntombela
LIBRARY MANAGER

Appendix 2: Participants covering letter and informed consent

INFORMED CONSENT FORM

Title of the study:

Information needs of University of South Africa students using the Adult Reference Department at Msunduzi Municipal Library, Pietermaritzburg.

DECLARATION

I....., hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire. I understand the intention of the research. I hereby agree to participate.

Participant

Signed: _____

Date: _____

Researcher

Signed: _____

Date: _____

Appendix 3: Data collection instrument: self-administered questionnaire.

Questionnaire: *Information needs of UNISA students using Adult Reference Department at Msunduzi Municipal Library, Pietermaritzburg.*

I am currently registered for the Masters Degree in Information Studies at the University of KwaZulu-Natal, Pietermaritzburg campus, and conducting a research study as one of the requirements for the Masters programme. The purpose of my study is to identify the information needs of the users, assess them and use findings and recommendations of the study to contribute towards the implementation of reviewed collection development as well as improving service delivery. Participation is completely voluntary and answers will be kept confidential. I appreciate the time taken to answer the following questions.

Instructions for filling in questionnaire

- I. Please tick “√” or mark with a cross “X” in the applicable answer(s).
- II. Please print and use the space provided where you are required to specify.
- III. Please do not leave blank spaces rather use “N/A” if not applicable.

Section 1: Demographic Data

1.1 Gender

Male	
Female	

1.2 Age group

Under 20	
20 - 30	
31 - 40	
41 – 50	
51+	

1.3 What level of education are you registered for?

Certificate	
Diploma	
Undergraduate	
Postgraduate	
Non-degree purposes	

Other, please specify: _____

1.4 What is your field of study? _____

1.5 Are you a

Part-time student (working & studying)	
Full-time student (only studying)	

1.6 What is your home language? _____

Section 2: Purpose for use

The Adult Reference Department (ARD) provides the resources and services in various media formats to meet the needs of the users for education, information and personal developments, this section is trying to find out from you the primary purpose of using ARD and if that purpose is being fulfilled.

2.1 For what purposes are you using the ARD section of the library? (*Please select all applicable options*)

To obtain study material	
To use study area	
To do research	
To use internet café	
To have group discussions with other students	

Other, please specify: _____

2.2 How or from whom do you seek help from regarding your academic information need? (*Please select all applicable options*)

Consult reference staff	
Ask fellow students or friends	

Other, please specify: _____

Section 3: Information needs

Information needs refers to the information required by students to fulfil their educational objectives.

3.1 How often do you visit Msunduzi Municipal Library?

Daily	
Weekly	
Monthly	
Rarely	

Other, please specify: _____

3.2 Does the library have the necessary information to help you find what you need?

Always	
Often	
Sometimes	
Seldom	
Never	

3.3 Please indicate the degree of satisfaction with information obtained from the ARD?

Very satisfied	
----------------	--

Satisfied	
Unsure	
Moderately satisfied	
Unsatisfied	

If moderately satisfied or unsatisfied, please explain your answer.

3.4 Indicate your personal characteristics:

I have the language ability to express myself clearly	
I have experience in the use of the library	
I have received training in the use of the library and its resources	
I have computer and information searching skills	

Other, please specify: _____

Section 4: Information sources

Information sources refer to any source of information that can be used to acquire information from, such as books, encyclopedias, journals, and the Internet.

4.1 How often do you use the ARD library resources and services?

Daily	
Weekly	
Monthly	
Rarely	
Never	

4.2 Do you regularly find the prescribed or recommended books you need?

Yes	
No	
Not applicable	

4.3 Which sources do you consult when looking for information? Please tick “√” or place a cross “X” in each row.

Source	Always	Often	Sometimes	Rarely	Never
Textbooks					
Journals (Online/Print)					
Newspapers					
Government Publications					
Internet					
Other, please specify (e.g. maps, encyclopedia, dictionary)					

4.4 When using the ARD’s Internet café to find information for your studies, please indicate the level of satisfaction using a scale of 1 to 7, where 1 is “not at all satisfied” and 7 is “highly satisfied”.

Finding information	1	2	3	4	5	6	7
Amount of time it takes to find information I need via internet searches							
Success in finding the information I need on the internet							

4.5 There are certain factors contributing to the sources of information you choose to consult and use when looking for information. These are ease of use, reliability, accessibility, relevancy and prior experience. How would you rank these contributing factors in terms of how influential they are? *Please place an "X" for each row.*

Factor	Extremely Influential	Very Influential	Somewhat Influential	Slightly influential	Not at all influential
Ease of use					
Reliability					
Accessibility					
Relevancy					
Prior experience					
Other, please specify					

Section 5: Library Services

5.1 Are you aware of the following library services?

Library Services	Yes	No
Provision of all South African published books, journals, newspapers, government publication, and maps for reference purposes.		
Inter-library loans		
Literature searches		
Internet services		

5.2 Do you need any other reference services that are not provided by the library?

Yes	
No	

If yes, please specify which one/s _____

5.3 How would you rate your overall satisfaction with ARD library resources and services? Using a scale below, please rate your overall satisfaction.

Completely dissatisfied	
Mostly dissatisfied	
Somewhat dissatisfied	
Neither satisfied or dissatisfied	
Somewhat satisfied	
Mostly satisfied	
Completely satisfied	

Section 6: Challenges/barriers experienced by patrons

6.1 Please rank the barriers or challenges experienced (if any) when searching for information at the ARD in the library.

Barriers	High	Medium	Low
Lack of access			
Lack of time			
Inadequate resources			
Lack of skills in using library resources			
Lack of knowledge of information sources			
Language			
Other, please specify			

6.2 Please use the space provided below for any additional comments, concerns or suggestions.

Thank you for your time and cooperation. Please return the completed questionnaire immediately after completion.